True Image™ 2013 by Acronis®

RTM

User's Guide

Table of contents

1 Getting started 7

1.1 Introduction 7

1.1.1 What is True Image™ 2013 by Acronis®? 7
1.1.2 What is True Image 2013 Plus Pack by Acronis? 8
1.1.3 True Image 2013 basic concepts 8
1.1.4 New in True Image 2013 by Acronis 10
1.1.5 FAQ about backup, recovery and cloning 11
1.1.6 System requirements and supported media 12
1.1.7 True Image 2013 installation 15
1.1.8 True Image 2013 activation 16
1.1.9 Program workspace 18

2 How to 37

3 Backing up data 38

3.1 The difference between file backups and disk/partition images 38
3.2 Full, incremental and differential backups 39
3.3 Backup file naming 39
3.4 Backing up partitions and disks 42
3.5 Backing up files and folders 44

3.5.1 Data categories 45
3.5.2 Support for Zip format 46

3.6 Backing up e-mail 47
3.7 Using Acronis Nonstop Backup 48

3.7.1 Protecting your data continuously 50
3.7.2 Protecting your system continuously 51
3.7.3 Acronis Nonstop Backup data storage 52
3.7.4 Nonstop Backup - Frequently asked questions 53

3.8 Making reserve copies of your backups 54
3.9 How to make bootable removable media with a backup 55
3.10 Backup to various places 56
3.11 Adding an existing backup to the list 58
3.12 Deleting backups and backup versions 58
3.13 Backup options 58

3.13.1 Backup schemes 60
3.13.2 Single version scheme 60
3.13.3 Version chain scheme 61
3.13.4 Custom schemes 61
3.13.5 Image creation mode 65
3.13.6 Backup protection 65
3.13.7 Pre/Post commands for backup 66
3.13.8 Backup splitting 67
3.13.9 Backup validation option 67
3.13.10 Backup reserve copy 68
3.13.11 Removable media settings 68
3.13.12 Backup comment 69
3.13.13 Screenshot settings 69

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3.13.14 Error handling ... 70
3.13.15 Computer shutdown ... 70
3.13.16 File-level security settings for backup ... 71
3.13.17 Windows account ... 71
3.13.18 Performance of backup operation ... 71
3.13.19 Notifications for backup operation ... 72
3.13.20 Excluding items from backup ... 73
3.14 Validating backups ... 75
3.15 Consolidating backup versions ... 75
3.15.1 Archive to consolidate protection ... 76
3.15.2 Backup selection ... 76
3.15.3 Result location ... 76
3.15.4 Consolidation summary ... 77
3.16 Cloning backup settings ... 77
4 Recovering data ... 78
4.1 Recovering your system after a crash ... 78
4.1.1 Trying to determine the crash cause ... 78
4.1.2 Preparing for recovery ... 79
4.1.3 Recovering your system ... 79
4.2 Recovering partitions and disks ... 82
4.3 Recovering partitions protected with Acronis Nonstop Backup ... 84
4.4 How to recover more than one partition at once ... 84
4.5 Recovering a disk backup to a different disk under rescue media ... 88
4.5.1 Recovering a disk with a hidden partition ... 89
4.6 Recovering data from file-level backups ... 94
4.7 Recovering file versions ... 95
4.8 Recovering to different hardware ... 96
4.8.1 Recovering your system with the help of Acronis Universal Restore ... 96
4.8.2 Recovering your system with the help of Acronis Universal Restore under rescue media ... 97
4.9 Acronis Universal Restore ... 100
4.9.1 Purpose of Acronis Universal Restore ... 100
4.9.2 General principles of Acronis Universal Restore ... 101
4.10 How to use Acronis Startup Recovery Manager ... 101
4.11 About recovery of dynamic/GPT disks and volumes ... 102
4.12 Backup protection dialog box ... 103
4.13 Arranging boot order in BIOS ... 103
4.14 Recovery options ... 104
4.14.1 Disk recovery mode ... 105
4.14.2 Pre/Post commands for recovery ... 105
4.14.3 Validation option ... 105
4.14.4 Computer restart ... 106
4.14.5 File recovery options ... 106
4.14.6 Overwrite file options ... 106
4.14.7 Performance of recovery operation ... 107
4.14.8 Notifications for recovery operation ... 107
4.15 Restoring computer to factory settings ... 108

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5 Synchronizing data 111
5.1 About the Sync feature 111
5.2 How we ensure security of your data 111
5.3 Acronis server login 112
5.4 What you can and cannot synchronize 112
5.5 Sync icons 113
5.6 Default sync 114
5.7 Sync creation 114
5.7.1 How to sync data between your computers 115
5.7.2 How to sync with a local folder 115
5.7.3 How to sync data with other people 116
5.8 Synchronizing a mobile device 118
5.8.1 How to install True Image app on your mobile device 118
5.9 Versions of synchronized files 119
5.9.1 Reverting to a previous file version 119
5.10 How to clean up your space on Acronis Cloud 119
5.11 How to recover a deleted file 121
5.12 How to share folders 122
5.13 How to create public links to files and folders 123
5.14 How to unlink a device from your account 123
5.15 How to revoke an invitation to share a sync 124
5.16 How to leave a sync 125
6 Using online backup 127
6.1 What is Acronis Cloud? 127
6.2 Subscription information 127
6.3 Backing up to Acronis Cloud 128
6.4 Managing online backups 129
6.5 Online backup options 130
6.5.1 Acronis Cloud connection attempts 130
6.5.2 Acronis Cloud cleanup 131
6.5.3 Encryption key 132
6.5.4 Windows account for Online backup 132
6.5.5 Operation priority 133
6.5.6 Network connection speed limit 133
6.5.7 Notifications 134
6.5.8 Exclusions 135
6.6 Recovery from Acronis Cloud 135
6.6.1 Recovering data from online backups 135
6.6.2 Selecting a version to recover 136
6.7 Removing data from Acronis Cloud 137
7 Useful information 138
7.1 Protecting your system 138
7.2 Deciding where to store your backups 140

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7.2.1 FTP connection ... 141
7.2.2 Authentication settings ... 141
7.3 Making sure that your rescue media can be used when needed ... 142
7.3.1 Selecting video mode when booting from the rescue media ... 145
7.4 Testing that your backups can be used for recovery ... 146
7.5 Migrating your system from an HDD to an SSD ... 146
7.5.1 Preparing for migration ... 147
7.5.2 What to do if True Image 2013 does not recognize your SSD ... 147
7.5.3 Checking SSD partition alignment ... 149
7.5.4 Fixing SSD partition alignment ... 149
7.5.5 Migrating to an SSD using the backup and recovery method ... 150
7.5.6 What to do if your SSD does not have enough space for all HDD content ... 151
7.6 Trying system changes safely ... 151
7.6.1 What is Try&Decide ... 152
7.6.2 Starting the Try mode ... 154
7.6.3 Stopping the Try mode ... 154
7.6.4 Try&Decide options and notifications ... 155
7.6.5 Try&Decide: typical use cases ... 156
7.7 Scheduling ... 157
7.7.1 Daily execution parameters ... 159
7.7.2 Weekly execution parameters ... 159
7.7.3 Monthly execution parameters ... 160
7.7.4 Upon event execution parameters ... 160
7.8 Searching backups and their content ... 160
7.8.1 Searching ... 160
7.8.2 Using Windows Search with True Image 2013 ... 161
7.9 Choosing columns for viewing in wizards ... 166
7.10 Backup information ... 166
7.11 Timeout settings ... 166
8 Tools and utilities ... 167
8.1 Acronis Startup Recovery Manager ... 168
8.1.1 How it works ... 168
8.1.2 How to use ... 168
8.2 Creating bootable rescue media ... 169
8.2.1 Acronis Media Builder ... 169
8.2.2 Creating BartPE disc with True Image 2013 ... 174
8.2.3 Creating WinPE-based rescue media ... 176
8.2.4 How to prepare a USB flash drive for Acronis Media Builder ... 181
8.3 Creating factory bootable media ... 182
8.4 Working with Acronis Secure Zone ... 182
8.4.1 Acronis Secure Zone ... 183
8.4.2 Acronis Secure Zone location ... 184
8.4.3 Selecting partitions ... 185
8.4.4 Size of Acronis Secure Zone ... 185
8.4.5 Managing Acronis Secure Zone ... 186
8.4.6 Acronis Secure Zone summary ... 188
8.5 Cloning a hard disk ... 188
8.5.1 General information ... 189
8.5.2 Security ... 189

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8.5.3 Selecting clone mode ... 190
8.5.4 Selecting a source disk ... 191
8.5.5 Selecting a destination disk ... 192
8.5.6 Move method ... 192
8.5.7 Data migration ... 193
8.5.8 Manual partitioning ... 193
8.5.9 Cloning summary ... 195
8.6 Adding a new hard disk ... 196
8.6.1 Selecting a hard disk ... 196
8.6.2 Selecting initialization method ... 198
8.6.3 Creating new partitions ... 198
8.6.4 Add new disk summary ... 201
8.7 Acronis Extended Capacity Manager ... 201
8.7.1 If Acronis Extended Capacity Manager does not start ... 203
8.8 Security and Privacy Tools ... 203
8.8.1 Acronis DriveCleanser ... 204
8.8.2 File shredder ... 211
8.8.3 System Clean-up ... 213
8.8.4 Hard Disk Wiping methods ... 219
8.9 Mounting an image ... 221
8.10 Unmounting an image ... 223
8.11 Working with vhd files ... 224
8.11.1 Converting tib images into vhd virtual disks and vice versa ... 224
8.11.2 Recovery using vhd files created by Windows Backup ... 226
8.11.3 Booting from a tib image of your Windows 7 system partition ... 227
8.11.4 Acronis Boot Sequence Manager ... 228
8.12 Importing and exporting backup settings ... 228
9 Troubleshooting ... 230
9.1 Acronis System Report ... 230
9.2 Acronis Smart Error Reporting ... 231
9.3 How to collect crash dumps ... 232
9.4 General recommendations ... 233
9.5 Creating a custom rescue CD ... 233
9.6 Viewing log ... 234
9.7 Acronis Customer Experience Program ... 235
10 Glossary of Terms ... 238

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1 Getting started

1.1 Introduction

In this section

What is True Image™ 2013 by Acronis®?.....7
What is True Image 2013 Plus Pack by Acronis? 8
True Image 2013 basic concepts.....8
New in True Image 2013 by Acronis 10
FAQ about backup, recovery and cloning 11
System requirements and supported media 12
True Image 2013 installation 15
True Image 2013 activation 16
Program workspace 18

1.1.1 What is True Image™ 2013 by Acronis®?

True Image 2013 by Acronis is an integrated software suite that ensures the security of all of the information on your PC. It can back up the operating system, applications, settings and all of your data, while also securely destroying any confidential data you no longer need. With this software, you can back up selected files and folders, settings and messages of Microsoft e-mail clients — or even the entire disk drive or selected partitions. Online backup will allow you to store your most important files on a remote storage. Your data will be protected even if your computer is lost, stolen or destroyed. Acronis Nonstop Backup continuously saves changes in your system and files, as often as every five minutes, so you can rollback easily to any point in time if needed.

True Image 2013 provides you with all the essential tools to recover your computer system should a disaster occur, such as losing data, accidentally deleting critical files or folders, or suffering a complete hard disk crash.

With the unique technology developed by Acronis and implemented in True Image 2013 you can perform exact, sector-by-sector disk backups. Such backups include all operating systems, applications and configuration files, personal settings, and data.

True Image 2013 helps you protect your identity as well. Simply deleting old data will not remove it permanently from your computer. True Image 2013 includes Acronis DriveCleanser that permanently destroys files and wipes personal information from partitions and/or entire disks, as well as the System Clean-up tool that cleans up your Windows system of all traces of user activity.

When performing scheduled backups, True Image 2013 automatically selects a backup mode (full, incremental, differential), in accordance with the backup scheme set by the user.

You can store backups on almost any PC storage device.

Windows-style interface and wizards will make your work easier. Just perform a few simple steps and let True Image 2013 take care of everything else! When a system problem occurs, the software will get you up and running in no time.

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1.1.2 What is True Image 2013 Plus Pack by Acronis?

True Image 2013 Plus Pack is an add-on to True Image 2013. It is purchased separately, has a separate license, and is installed from its own setup file. True Image 2013 must be installed on your computer before the True Image 2013 Plus Pack can be installed. True Image 2013 Plus Pack adds the Acronis Universal Restore option for use during recovery. True Image 2013 Plus Pack also installs Acronis WinPE ISO builder and provides support for dynamic disks.

Here are the features of True Image 2013 Plus Pack in more details:

- Support of dynamic disks – operations with dynamic disks expand the range of hard drive configurations supported by True Image 2013. Dynamic disks offer greater flexibility for volume management and may provide benefits in computers with more than one hard drive.
- Users of True Image 2013 Plus Pack have the Universal Restore feature available to them. Acronis Universal Restore lets you restore an image of a Windows operating system to a different hardware environment. You can restore information on independent computers regardless of the hardware used on the independent computer. This may come in handy, for example, after replacing a damaged motherboard or when deciding to migrate your system from a desktop to a laptop. For more information see Acronis Universal Restore (p. 100).
- Acronis WinPE ISO builder – This program adds True Image 2013 plug-in to WinPE (Windows Preinstallation Environment) distributions based on any of the following kernels: WinPE 1.5, 2.x, 3.0. To be able to create or modify PE 2.x and 3.0 images, you must have Windows Automated Installation Kit (AIK) installed. Running True Image 2013 in the preinstallation environment may provide better compatibility with your computer's hardware because the preinstallation environment uses Windows drivers. For more information see Creating WinPE-based rescue media (p. 176).

1.1.3 True Image 2013 basic concepts

This section provides general information about basic concepts which could be useful for understanding how the program works.

Backup and recovery

Backup refers to the making copies of data so that these additional copies may be used to **recover** the original after a data loss event.

Backups are useful primarily for two purposes. The first is to restore a state following a disaster (called disaster recovery). The second is to recover small numbers of files after they have been accidentally deleted or corrupted.

True Image 2013 does both by creating disk (or partition) images and file-level backups respectively.

Backup versions

Backup versions are the file or files created during each backup operation. If you do not use consolidation feature, the amount of versions created is always equal to the amount of times the backup is executed or to the amount of stored points in time.

So, a version represents a point in time to which the system or data can be restored. To put it another way, backup versions represent full, incremental and differential backups - see Full, incremental and differential backups (p. 39).

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The backup versions are similar to file versions. The file versions concept is familiar to those who use a Windows Vista and Windows 7 feature called "Previous versions of files". This feature allows you to restore a file as it existed on a particular date and time. A backup version allows you to recover your data in a similar way.

This could be useful when trying to find damaged or deleted files. Simply browse through the backup versions in the Acronis Backup Explorer until you find the backup version containing the required files. Additionally, you can recover different saved versions of the found files.

There is one more type of incremental backup version. If you mount a partition in the read-write mode, the program assumes that the mounted image will be modified and creates an incremental version to capture the changes. This type of incremental version has somewhat different properties. For example, it cannot be consolidated.

Disk cloning

This operation migrates or copies the entire contents of one disk drive to another disk drive. This may be necessary, for example, when installing a larger capacity disk. The result is two identical drives with the same file structure. The "Disk Clone" tool effectively copies all of the contents of one hard disk drive onto another hard disk drive. The operation allows you to transfer all the information (including the operating system and installed programs) from one hard disk drive to another without having to reinstall and reconfigure all of your software.

True Image 2013 does not provide for cloning a single partition. You can only clone the entire drive.

You can also transfer all the information from your hard disk drive to another one by backing up the entire old hard disk and then recovering the backup to the new disk.

Backup file format

True Image 2013 usually saves backup data in the proprietary tib format using compression. This reduces the amount of needed storage space.

When creating a tib file, the program calculates checksum values for data blocks and adds these values to the data being backed up. These checksum values allow for the verification of data integrity.

The data from tib file backups can be recovered only through the True Image 2013 program. This may be done in Windows or in the recovery environment.

However, True Image 2013 is also able to save data in the well-known zip format. This allows you to retrieve files from backups anywhere without using True Image 2013.

The most widely used operating systems Microsoft Windows and Mac OS X, have built-in support for the zip file format.

Acronis Nonstop Backup uses a special hidden storage for data and metadata. The backed up data is compressed and split into files of about 1 GB. These files also have a proprietary format and the data they contain can be recovered only with the help of True Image 2013.

Backup validation

The backup validation feature allows you to confirm that your data can be recovered. As mentioned above, the program adds checksum values to the data blocks being backed up. During backup validation, True Image 2013 opens the backup file, recalculates the checksum values and compares

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those values with the stored ones. If all compared values match, the backup file is not corrupted and there is a high probability that the backup can be successfully used for data recovery.

Consolidation

Consolidation allows you to delete backups which you no longer need from a backup chain.

A chain to be consolidated can consist of a full backup and one or more incremental backups.

If necessary, you can delete the base full backup from the chain. The program will create a new full backup in place of the oldest remaining backup. Consolidation keeps whichever backups you choose and deletes any backups that are not selected.

Because consolidation may require significant time and system resources (including disk space), we recommend using it sparingly. In many cases, starting a new backup chain and then deleting the old one will be a better choice.

Acronis Nonstop Backup uses a different consolidation mechanism. The program consolidates the metadata it uses for managing the backed up data. Because the metadata information volume is significantly less than the backed up data volume, consolidation requires much less time and system resources.

Disaster recovery

Recovering from a disaster usually requires a rescue media and a backup of the system partition.

True Image 2013 provides for recovery from a disaster caused by system data corruption, viruses, malware, or other causes.

If the operating system fails to boot, True Image 2013 will recover the system partition. The boxed product comes with a rescue CD. Other legal owners of the program can create a rescue media by using the Media Builder tool.

Scheduling

For your backups to be really helpful, they must be as "up-to-date" as possible. This means that you should run backups on a regular basis, say once a day. Although creating an True Image 2013 backup is quite easy, on occasion, you may forget to do a backup.

With the scheduler, you do not have to remember. You can schedule automatic backups ahead of time. Your data will be backed up as long as there is sufficient storage space.

Understanding these terms and concepts will be helpful when using the program's features.

1.1.4 New in True Image 2013 by Acronis

- **Windows 8 support** - True Image 2013 supports the next version of the operating system released by Microsoft, namely Windows 8. You can safely buy and install Windows 8 without worrying whether you will be able to restore your system if need arises.
- **New backup naming rules** - The new automatic backup naming is more flexible and convenient. By default, True Image 2013 creates for each backup task a folder with a backup task name and keeps in this folder all related backups. A backup filename always contains a task name, a backup method, a backup number, and a sequential file number (if the backup is split into several files, the suffixes will be v1, v2, etc.). Optionally you may add to the name date, time, etc. by adding the appropriate macros.

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- **Synchronization with mobile devices** - Now you can sync your data not only between your PCs, but with your mobile devices as well. Such devices include phones and tablet PCs with the iOS and Android platforms. Simply go to App Store or Google Play, install the free Acronis app and get access to your data on Acronis Cloud anyplace and anytime.
- **Easy sharing of files and folders** - Users subscribed to the Acronis Cloud service now can share files and folders with one click. All you need to do is to right-click the desired file or folder and choose **Create public link** in the shortcut menu. The program creates a public link and places it in the Clipboard. You can share the link with any person. What is more, you can create public links to any file or folder and not only to those which are included in syncs or online backups.

1.1.5 FAQ about backup, recovery and cloning

- **I have a 150GB system partition, but the occupied space on that partition is only 80GB. What will True Image 2013 include in a backup?** - By default, True Image 2013 copies only the hard disk sectors that contain data, so it will include only 80GB in a backup. You can also choose the sector-by-sector mode. Note than such a backup mode is required only in special cases. For more information see Image creation mode (p. 65). While creating a sector-by-sector backup, the program copies both used and unused hard disk sectors and the backup file will usually be significantly larger.
- **Will my system disk backup include drivers, documents, pictures, etc.?** - Yes, such a backup will contain the drivers, as well as the contents of the My documents folder and its subfolders, if you kept the default location of the My documents folder. If you have just a single hard disk in your PC, such a backup will contain all of the operating system, applications and data.
- **I have an old hard disk drive which is almost full in my notebook. I purchased a new bigger HDD. How can I transfer Windows, programs and data to the new disk?** - You can either clone the old hard disk on the new one or back up the old hard disk and then recover the backup to a new one. The optimum method usually depends on your old hard disk partitions layout.
- **I have replaced my failed motherboard with a different one and now Windows does not start. I have backups of my system disk. Is it possible to use them for restoring my computer back to life?** - Yes, this is possible, but only with use of Acronis Universal Restore (provided by the separately purchased True Image 2013 Plus Pack). You will need to select the **Use Acronis Universal Restore** checkbox when configuring recovery. For more information, see Recovering to different hardware (p. 96). You may need to download the chipset and the hard disk controller drivers from the Web site of your motherboard manufacturer to add them during recovery.
- **I want to replace my old desktop PC with a notebook. Will True Image 2013 be able to transfer Windows, programs and data to the notebook?** - Yes, this can be done. First back up your old PC and then recover the backup to the notebook with use of Acronis Universal Restore (provided by the separately purchased True Image 2013 Plus Pack). You will need to select the **Use Acronis Universal Restore** checkbox when configuring recovery. During recovery with Universal Restore you may need to provide drivers for the chipset, hard disk controllers, etc. of your new computer. For more information, see Recovering to different hardware (p. 96).
- **I want to migrate my old system hard disk to an SSD. Can this be done with True Image 2013?** - Yes, True Image 2013 provides such a function. For procedure details, see Migrating your system from an HDD to an SSD (p. 146)
- **What is the best way to migrate the system to a new disk: cloning or backup and recovery?** - The backup and recovery method provides more flexibility. In any case, we strongly recommend to make a backup of your old hard disk even if you decide to use cloning. It could be your data saver if something goes wrong with your original hard disk during cloning. For example, there

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were cases when users chose the wrong disk as the target and thus wiped their system disk. In addition, you can make more than one backup to create redundancy and increase security.

- **What should I back up: a partition or the whole disk?** - In most cases, it is better to back up the whole disk. However, there may be some cases when a partition backup is advisable. For example, your notebook has a single hard disk with two partitions: system (disk letter C) and the data (disk letter D). The system partition stores your working documents in the My documents folder with subfolders. The data partition stores your videos, pictures, and music files. Such files are already compressed and backing them up using True Image 2013 would not give you significant reduction of the backup file size. In this case, it may be better to use a local sync for the data partition files and a separate backup for the system partition. However, we also recommend creating at least one whole disk backup if your backup storage has enough space.
- **Could you tell me how to clone: in Windows or after booting from the rescue media?** Even when you start cloning in Windows, the computer will reboot into the Linux environment the same as when booting from the rescue media. Because of this, it is better to clone under rescue media. For example, there may be a case when your hard disk drives are detected in Windows and not detected in Linux. If this is the case, the cloning operation will fail after reboot. When booting from the rescue media, you can make sure that True Image 2013 detects both the source and target disks before starting the cloning operation.
- **Can I clone or back up and recover a dual boot machine?** Yes, this is possible in most cases. If your systems are installed in separate partitions of the same physical hard disk drive, cloning or recovery usually proceeds without any problems. If the systems are on different physical hard disk drives, there may be some problems with bootability after recovery. Please note that activating Acronis Startup Recovery Manager on dual- and multiboot systems with Linux loaders requires special preparation. For more information, see How to use Acronis Startup Recovery Manager (p. 101). Furthermore, recovering a backup of a dual boot machine to different hardware requires using Acronis Universal Restore.
- **Does True Image 2013 support RAID?** - True Image 2013 supports hardware RAID arrays of all popular types. Support of software RAID configurations on dynamic disks is provided only with True Image 2013 Plus Pack. Even with the Plus Pack, the program does not support software RAID 1 (mirrored) and RAID 5. Acronis Bootable Rescue Media supports most of the popular hardware RAID controllers. If the standard Acronis rescue media does not "see" the RAID as a single volume, the media does not have the appropriate drivers. Owners of the True Image 2013 Plus Pack can try to create WinPE-based rescue media. This media may provide the necessary drivers.
- **Can I use True Image 2013 to migrate from a single disk to RAID?** This is possible in many cases. However, it is better to use the backup and recovery method rather than cloning. If you recover a backup of a single disk to RAID, you will usually need to use the Universal Restore feature provided by Plus Pack to add the RAID drivers during recovery. The drivers must have the .inf filename extension.

1.1.6 System requirements and supported media

1.1.6.1 Minimum system requirements

True Image 2013 has minimum hardware requirements corresponding to that of the operating system installed on the computer to be used for running True Image 2013. In addition True Image 2013 requires the following hardware:

- CD-RW/DVD-RW drive for bootable media creation
- Mouse or other pointing device (recommended)

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Using Acronis Nonstop Backup requires at least 1 GB RAM.

True Image 2013 rescue media has the following hardware requirements:

- 512 MB RAM
- Processor Pentium 1 GHz or faster
- 1.5 GB of free space on a hard disk

The recommended screen resolution is 1280 x 1024.

The minimum screen resolution is 1024 x 768.

1.1.6.2 Supported operating systems

True Image 2013 has been tested on the following operating systems:

- Windows XP SP3
- Windows XP Professional x64 Edition SP2
- Windows Vista SP2 (all editions)
- Windows 7 SP1 (all editions)
- Windows 8 (all editions)
- Windows Home Server 2011

True Image 2013 also lets you create a bootable CD-R/DVD-R that can back up and recover a disk/partition on a computer running any Intel- or AMD- based PC operating system, including Linux®. (Note that the Intel-based Apple Macintosh is not supported.)

1.1.6.3 Supported file systems

- FAT16/32
- NTFS
- Ext2/Ext3/Ext4 *
- ReiserFS *
- Linux SWAP *

If a file system is not supported or is corrupted, True Image 2013 can copy data using a sector-by-sector approach.

** The Ext2/Ext3/Ext4, ReiserFS, and Linux SWAP file systems are supported only for disk or partition backup/recovery operations. You cannot use True Image 2013 for file-level operations with these file systems (file backup, recovery, search, as well as image mounting and file recovering from images). You also cannot perform backups to disks or partitions with these file systems.*

1.1.6.4 Supported storage media

- Hard disk drives*
- Solid State Drives (SSD)
- Networked storage devices
- FTP servers**
- CD-R/RW, DVD-R/RW, DVD+R (including double-layer DVD+R), DVD+RW, DVD-RAM, BD-R, BD-RE***

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- USB 1.1 / 2.0 / 3.0, FireWire (IEEE-1394) and PC card storage devices

* True Image 2013 does not support the following dynamic volume types: Mirrored and RAID-5. There are some additional limitations on operations with dynamic and GPT disks:

  - To perform operations with dynamic disks, you need separately purchased True Image 2013 Plus Pack
  - Creation of Acronis Secure Zone on dynamic disks is not supported
  - Recovery of a dynamic volume as a dynamic volume with manual resizing is not supported
  - Try&Decide® cannot be used for protecting dynamic and GPT disks
  - "Clone disk" operation is not supported for dynamic disks

True Image 2013 supports large hard disk drives with a capacity of more than 2TB. This support is provided even if the operating system does not have support for such hardware. For more information see Acronis Extended Capacity Manager (p. 201).

** An FTP server must allow passive mode file transfers. For data to be recovered directly from an FTP server, the backup must consist of files no greater than 2GB each.

The firewall settings of the source computer should have Ports 20 and 21 opened for the TPC and UDP protocols to function. The **Routing and Remote Access** Windows service should be disabled.

*** Burned rewritable discs cannot be read in Linux without a kernel patch.

1.1.6.5 SSD support

The recommended offset for Solid State Drives (SSD) is a multiple of 64 KB (most commonly, 1024KB or 2048 sectors).

True Image 2013 provides full support of SSDs. It keeps the proper offset of SSD during such operations as image recovery and cloning. Specifically, full support means that:

- If you recover a disk image to an SSD or clone a disk to an SSD, the offset will be automatically set to the default 1024 KB (2048 sectors).
- If you recover a partition backup to a target empty partitioned disk (SSD), the target SSD will keep its original offset.

1.1.6.6 Technical Support

Maintenance and Support Program

If you need assistance with your product, please go to http://www.acronis.com/support/

Product Updates

You can download the latest updates for all your registered software products from our website at any time after logging into your **Account** (https://www.acronis.com/my) and registering the product. See **Registering Acronis Products at the Website** (http://kb.acronis.com/content/4834) and **Acronis Website User Guide** (http://kb.acronis.com/content/8128).

1.1.6.7 Trial version information

The trial version of True Image 2013 will work only during the trial period of 30 days. It has the following limitations:

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- Disk cloning is disabled;
- True Image 2013 Plus Pack is not available;
- Only recovering is available when booting from an Acronis Bootable Media.

Data synchronization is available without any limitations, but after the trial period expires:

- Your computer will be excluded from all syncs. After installing the full version of True Image 2013 you will be able to connect to the syncs again.
- All the versions of synced files will be permanently deleted from the Acronis Cloud.

To purchase the full version, please visit http://www.acronis.com/buy/atih/
http://www.acronis.com/buy/atih/

Click **Go to main screen** to start True Image 2013 trial version.

Click **Buy now** to go to the official Acronis online store.

Click **Activate** if you have already purchased the full version and have a valid product serial number.

1.1.7 True Image 2013 installation

Installing True Image 2013

To install True Image 2013:

1. Run the setup file. Before starting the setup process, True Image 2013 will check for a newer build on the Web site. If there is one, the newer version will be offered for installation.
2. In the install menu, click **Install** to start the installation procedure.
3. Read and accept the terms of the license agreement in the **License Agreement** window.
4. Read the participation terms and decide whether you want to participate in the Acronis Customer Experience Program.
5. In the **Serial number** window, enter a serial number for the full or trial version. Type or copy and paste the serial number in the text box.

   *To get a serial number for the free trial version at Acronis Web site, click **Get trial serial number**. The serial number will be sent to a specified e-mail address. The trial version of True Image 2013 works for 30 days.*

   Additional parameters:
   - **Set additional options** - if this check box is selected, the **Setup options** step becomes available.
   - **Activate the product automatically** - select this check box to activate the product via the Internet during the installation. You may clear the check box. In that case you will need to activate the product after installation. See details in True Image 2013 activation (p. 16).
6. This step is available only if the **Set additional options** check box is selected in the **Serial number** window.

   In the **Setup options** window, choose the installation option:
   - Change the installation folder, if necessary.
7. Click **Proceed** to begin installation. To make changes in the setup, use the **Back** and **Next** buttons.

Note

- If you purchased a boxed product, the installation CD contains an installation file for installing an True Image 2013 plug-in for the BartPE utility. BartPE (Bart Preinstalled Environment) is a

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bootable Windows CD/DVD created from the original Windows XP or Windows Server 2003 installation/setup CD. Applications are installed into BartPE in the form of plug-ins and the True Image 2013 plug-in can be included into the BartPE plug-in tab. Booting from the BartPE CD/DVD with the included True Image 2013 plug-in will allow you to work in a well-known Windows environment and use practically all True Image 2013 functionality for recovering your system from a disaster. For more information on the BartPE visit the BartPE homepage at http://www.nu2.nu/pebuilder/.

- You can also download that installation file from the Acronis Web site.

Recovering from an True Image 2013 error

If True Image 2013 ceased running or produced errors, its files might be corrupted. To repair this problem, you first have to recover the program. To do this, run True Image 2013 installer again. It will detect True Image 2013 on your computer and will ask you if you want to repair or remove it.

Removing True Image 2013

Select **Start** -> **Settings** -> **Control panel** -> **Add or remove programs** -> **True Image 2013** -> **Remove**. Then follow the instructions on the screen.

If you use Windows Vista, select **Start** -> **Control panel** -> **Programs and Features** -> **True Image 2013** -> **Remove**. Then follow the instructions on the screen. You may have to reboot your computer afterwards to complete the task.

If you use Windows 7, select **Start** -> **Control Panel** -> **Uninstall a program** -> **True Image 2013** -> **Uninstall**. Then follow the instructions on the screen. You may have to reboot your computer afterwards to complete the task.

If you use Windows 8, click the Settings icon, then select **Control Panel** -> **Uninstall a program** -> **True Image 2013** -> **Uninstall**.

*If you used the Acronis Secure Zone, Acronis Nonstop Backup or Acronis Extended Capacity Manager, select in the window that appears what to do with the zone, Nonstop Backup storages or extended capacity disks. Then click **Next** to proceed with the uninstallation procedure.*

Upgrading from old versions of Acronis True Image Home

If you already have Acronis True Image Home installed, the new version will simply update it; there is no need to remove the old version and reinstall the software.

Please keep in mind that the backups created by the later program version may be incompatible with the previous program versions. Therefore if you roll back True Image 2013 to an older version, you likely will have to re-create the backups using the older version. We strongly recommend that you create new bootable media after each product upgrade.

1.1.8 True Image 2013 activation

To use True Image 2013, you need to activate it via the Internet. Without activation the fully functional product works for 30 days. If you do not activate it during that period, all the program functions become unavailable except the recovery.

You can activate True Image 2013 either on your computer or from another computer, if your computer is not connected to the Internet.

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Activation on a computer connected to the Internet

If your computer is connected to the Internet, you can activate the product either automatically or from within the program.

To activate the product automatically:

1. Start the installation procedure. See details in True Image 2013 installation.
2. At the **Serial number** step, select the **Activate True Image 2013 automatically** check box. In this case True Image 2013 will try to perform activation during the first start after installation.

To activate the product from the main screen:

1. Start True Image 2013.
2. On the main program screen, click **Activate now** on the information bar.

If the computer where you install True Image 2013 does not have Internet connection or if the program cannot connect to Acronis Activation Server, you may select one of the following actions:

- **Try again** - select this option to try to connect to the Acronis Activation Server again;
- **Retry automatically later** - True Image 2013 will try to connect to the Acronis Activation Server every hour without the user interaction;
- **Activate from another computer** - you can activate the program manually from another machine that is connected to the Internet (see below).

Activation from another computer

If your computer is not connected to the Internet, you may activate True Image 2013 by using another computer which has connection to the Internet.

To activate the product from another computer:

1. Install and start True Image 2013.
2. On the main program screen, click **Activate now** on the information bar.
3. In the opened window, select **Activate from another computer**.
4. In the True Image 2013 Activation window, perform 3 simple steps:
    1. Save your installation code to a file by clicking the **Save to file** button, and specify a removable media as the file location (for example, a USB flash drive). You may also simply write down this code on a piece of paper.
    2. On another computer which has the Internet connection, go to http://www.acronis.com/activation/. The instructions on the screen will help you to get your activation code by using the installation code. Save the obtained activation code to a file on a removable media, or write it down on paper.
    3. On your computer, click the **Load from file** button and specify a path to the file with the activation code; or, simply type it into the box from the piece of paper.
5. Click **Activate**.

Moving license between computers

One serial number allows you to install True Image 2013 on a limited number of computers. The Standard edition of the product can be activated on 1 computer only. For the Family Pack edition the limit is 3 computers. If during activation True Image 2013 detects that the limit is exceeded, it displays an appropriate error message. In such a case you can either buy a new serial number or

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move the license to your new computer from another one on which the product is already activated. If you want to move the license, perform the following steps.

To move the license from another computer:

1. In the window with the error message, click **Move license from another computer**.
2. On the opened Web page follow the instructions on the screen.

   To perform this step, you need to have Acronis account. If you do not have an account yet, then create it first. You also have to register your serial number, if you have not done it. Then you need to choose from the list a computer from which you want to move the license. Note that on the chosen computer the product will be deactivated.

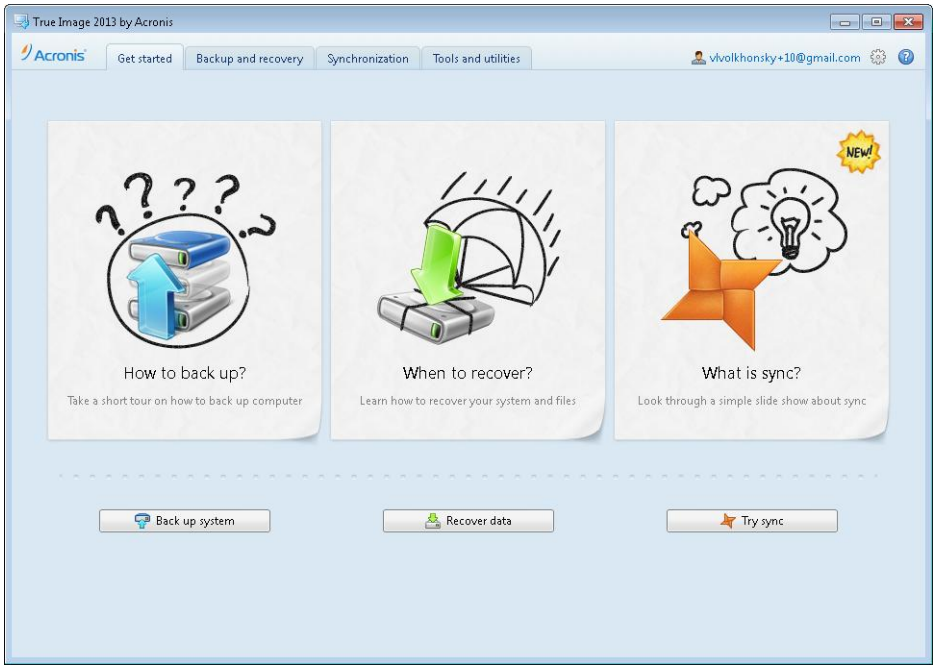
1.1.9 Program workspace

In this section

Get started tab 18
Backup and recovery tab 19
Synchronization tab 23
Tools and utilities tab 25
Wizards and notification area icons 25
Acronis Backup Explorer 26
Integration with Windows 32
Login menu 35
Settings menu 35
Help menu 35
Installing Acronis Hotfixes 36

1.1.9.1 Get started tab

Starting True Image 2013 for the first time opens the Home screen with the **Get started** tab selected.



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The Get started tab will help you to begin using the main True Image 2013 features, namely backup, recovery and synchronization. The program leads you through the actions required for performing those operations.

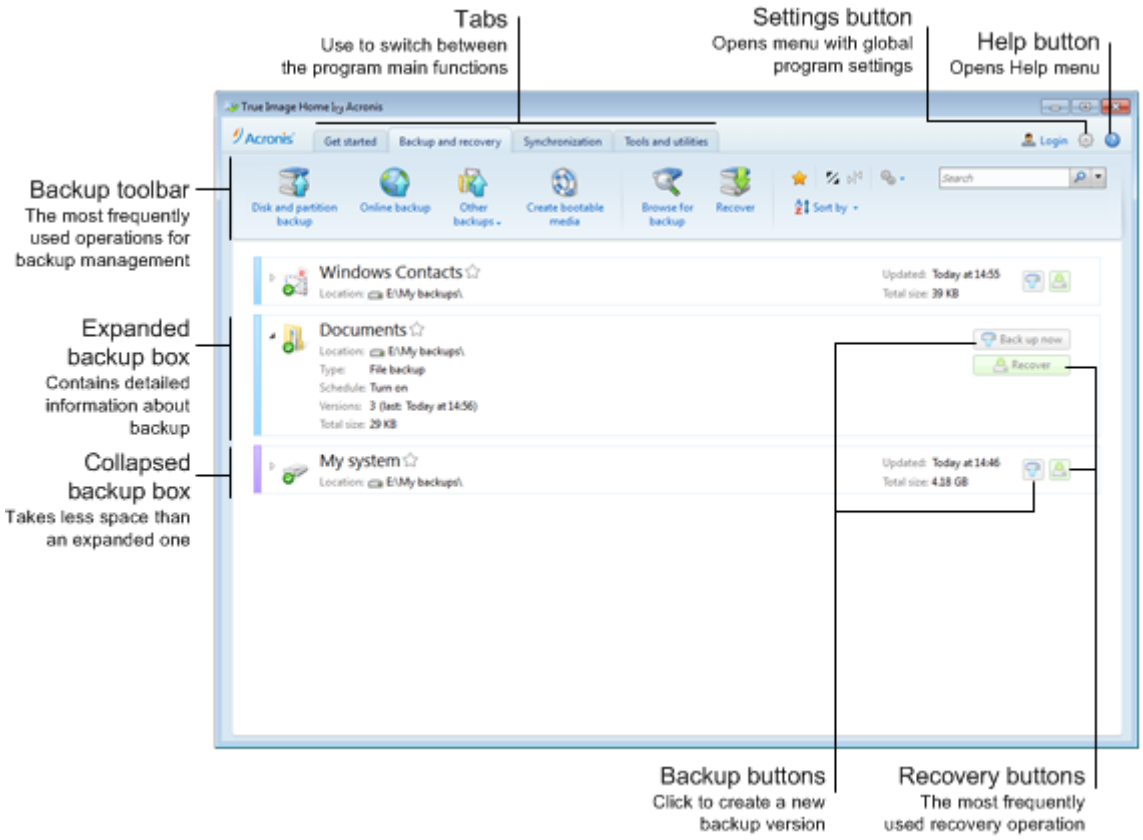
If you have not used previous versions of Acronis True Image Home, we recommend you become familiar with the above features by going through the steps required for completing backup, recovery and data synchronization.

After you begin using True Image 2013, it will start with displaying the tab that was selected when you exited the program.

1.1.9.2 Backup and recovery tab

The Backup and recovery tab provides quick access to all of the program functionality related to data backup and recovery.

If you have not created any backups yet, the program will offer to create a new backup or add an existing backup. If you have at least one backup, the screen will display the list of your backups.



The toolbar

See the toolbar commands description in Backup and recovery toolbar (p. 21).

The backups area

The area shows the backups you already have. It provides access to all operations with the existing backups and allows you to start recovery of your data.

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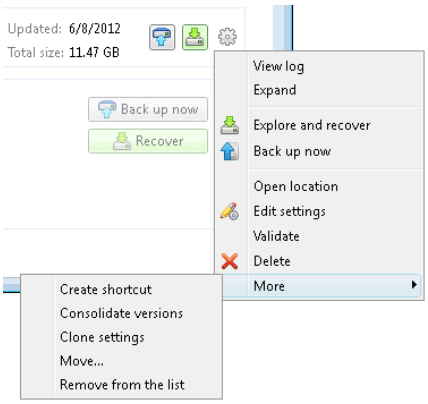
- **Back up now** - adds a new backup version to the existing backup or replaces the existing backup version, depending on the backup scheme being used.
- **Start** (available for a nonstop backup only) - starts nonstop backup protection.
- **Stop** (available for a nonstop backup only) - suspends nonstop backup protection.
- **Recover** - click to recover data.

When a backup box is collapsed, the backup and recovery operations can be started by clicking the appropriate icons. These icons, along with the Operations menu icon (a gear), appear when you move the pointer over a box area.

You can collapse and expand the backup box by clicking the triangle near a backup name.

Operations menu



Clicking the gear icon in the box of a selected backup or right-clicking in the free area of the box opens an Operations menu containing the following items:

- **View log** - click to open the log for the current backup.
- **Expand** - expands the selected backup box (available for collapsed boxes).
- **Collapse** - collapses the selected backup box into a narrow stripe (available for expanded boxes).
- **Recover files** (available only for disk backups) - opens the **Backup Explorer** window, where you can select any version of the backup.
- **Back up now** - adds a new backup version to the existing backup or replaces the existing backup version, depending on the backup scheme being used.
- **Open location** - opens the folder containing the backup files.
- **Edit settings** - allows editing of the current backup settings.
- **Recreate backup settings** (available only for backups manually added to the backup list) - allows configuring the settings for image, file, and e-mail backups created by a previous Acronis True Image Home version. This item may also appear for backups created on another computer and added to the backup list without importing their settings.

  Without backup settings, you will be unable to perform certain operations. Specifically, you cannot refresh the backup by clicking **Back up now**. Also, you cannot edit and clone the backup settings and schedule.
- **Validate** - starts backup validation.
- **Delete** - deletes all backup versions of the current backup at their location. Be careful, because the deletion cannot be undone.
- **More** - opens the following additional items:

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- **Create shortcut** - creates a shortcut on the Desktop. With the shortcut you can run a backup without starting True Image 2013.
- **Consolidate versions** - you can delete the backup versions you no longer need while maintaining the consistency of the backup.
- **Clone settings** - clones the current backup settings when you need to create several similar backups. Clone the backup settings and then introduce the required changes.
- **Move...** - click to move all the backup files to another location. The subsequent backup versions will be saved to the new location.

  If you change the backup destination by editing the backup settings, only new backup versions will be saved to the new location. The earlier backup versions will remain in the old location.

- **Remove from the list** - removes the current backup from the backup list shown in the My backups area. This operation also turns off the scheduling of the removed backup (if a schedule was set), but it does not delete the backup files.

- **Clean up...** (available for Nonstop Backup only) - opens the **Cleanup** dialog box where you can delete the backup versions you no longer need. The backup chain will not be corrupted.
- **Open Web application** (available for Online Backup only) - opens the Acronis Cloud application.

In case of Nonstop Backup and Online backup, the Operations menu will have less items. The Operations menu of backups created on another computer and added to the backup list without importing the backup settings will also have less items.

Backup and recovery toolbar

The toolbar at the top of the **Backup and recovery** tab contains the most frequently used commands for creating new backups, managing the backup list, validating backups, etc.

Command		Description
Disk and partition backup		This feature allows you to protect your computer by creating backups of your partitions (including the system one) and whole disks.
Online Backup		This feature allows you to store your data in the secure Acronis Cloud which is accessible via the Internet. If the backup list already includes an online backup, this item changes to **Edit Online Backup settings**, because you can run only one online backup at a time.
Other backups	**File backup**	This feature allows you to back up your files and folders.
	E-mail backup	This feature allows you to back up your e-mail messages and settings.
	Nonstop Backup	This feature continuously protects your partitions and files.

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Create bootable media		If your computer cannot start, use bootable rescue media to run the standalone version of True Image 2013, and recover your system from a previously created system partition backup.
Browse for backup		Click this item to browse for backups on your computer and add them to the backup list. This may be useful when you have backups created by a previous Acronis True Image Home version which are not shown in the backup list.
Recover		Click this item to recover data from your backups and then select the backup that contains the required data.
Show only my favorite backups		This icon filters the backups which you have marked as favorite.
Expand all backup boxes		This icon expands all collapsed backup boxes.
Collapse all backup boxes		This icon collapses all expanded backup boxes into narrow stripes.
Sort by	**Type**	This command sorts all backups by types. The order is as follows: disk backups - file backups - e-mail backups - nonstop backup - Windows backups - ZIP archives.
	Name	This command sorts all backups in alphabetical order.
	Date created	This command sorts all backups starting from the newest down to the oldest.
	Date updated	This command sorts all backups by date of the last version. The newer the last backup version, the higher the backup will be placed in the list.
	Total size	This command sorts all backups by size, starting from the biggest down to the smallest.
	Scheduling type	This command sorts all backups into two groups - backups with a schedule and backups without a schedule, which can be started only manually.
More features	**Explore all backups**	This command allows you to explore all your backups in the Acronis Backup Explorer using the time line.
	Validate all backups	This command checks the integrity of all your backups.
	Update backup list	Click to search for lost backups.

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	Remove from the list	**All backups**	This command removes all backup boxes from the backup list. The removed backups can be returned to the list by using the **Browse for backup** tool.
		Not-backed-up-yet boxes	This command removes all "empty" backup boxes from the backup list. Be careful because, after removal, such backup boxes cannot be returned to the list.

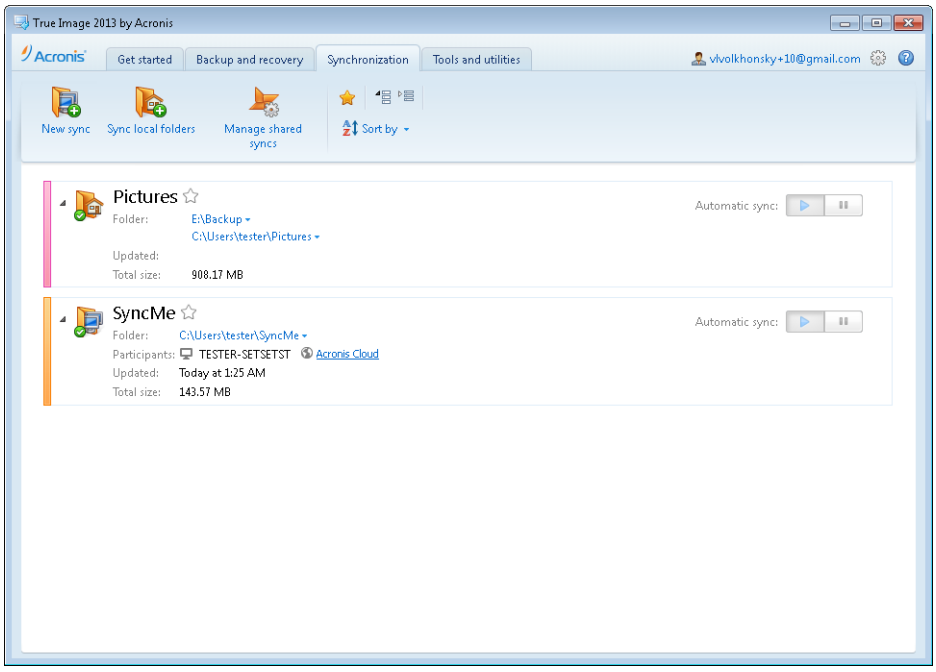
Search

To search for a backed up file you need to recover, type the filename or part of its name in the search field on the main menu bar. If the search is successful, the program will open Acronis Backup Explorer and show the found file and backup(s) containing the file.

1.1.9.3 Synchronization tab

The Synchronization tab allows you to manage all aspects of your data synchronization process: create new syncs, turn the existing syncs on and off, change their settings, delete unneeded syncs, and so on.

Every created sync is represented by a box, similar to backup boxes. A sync box contains short information about the corresponding sync process and allows you to manage this process.



Sync toolbar

This area contains the following items:

- **New sync** - allows you to select a folder to synchronize and send an invitation to the computer you want to synchronize your data with.
- **Sync local folders** - allows you to select two local folders to synchronize.
- **Manage shared syncs** - opens the Web page where you can manage your shared syncs.
- Show only my favorite syncs (icon) - filters the syncs which you have marked as favorite.

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- Expand all syncs (icon) - expands all collapsed sync boxes.
- Collapse all syncs (icon) - collapses all expanded sync boxes into narrow stripes.
- **Sort by**
  - **Name** - sorts all syncs in alphabetical order.
  - **Type** - sorts all syncs according to their types.

Sync list area

The area shows the boxes of the syncs you already have. It provides access to all operations with the existing syncs.

Operations menu

Clicking the gear icon in the box of a selected sync opens the Operations menu containing the following items:

- **Sync now** - runs data synchronization process forcibly. If a sync process has been interrupted for some reason (for example, your Internet connection has failed) or it has completed with errors, you can manually restart the sync process. To do this, first try to resolve the issue and then click **Sync now**.
- **Pause** - allows you to pause and resume the sync process. Note that the action does not delete the sync itself and your data will not be lost.
- **Share...** - opens the window where you can specify e-mail addresses of persons you want to invite to share the selected sync.
- **Sync with...** :
  - **Acronis Cloud** - allows you to store versions of the synced files on Acronis Cloud.
  - **Local folder...** - allows you to synchronize with a local folder, for example, located on an external hard drive.
  - **Other computer...** - allows you to synchronize with your another computer. This item is only present for syncs between local folders.
- **Cleanup options** - allows you to set automatic cleanup rules for versions of the synced files.
- **View log** - opens the log of True Image 2013 operations.
- **Remove** - deletes the sync. Deleting the sync does not delete the synced folder and its contents. However, this action deletes on Acronis Cloud all versions of the synced files if they were kept there, including the latest ones.

If you delete or rename the folder selected for synchronization, True Image 2013 excludes your computer from that sync. If you delete a subfolder inside the folder you have specified for synchronization, this subfolder will be deleted on all other computers as well.

Taskbar notification area icon

When at least one Sync is active, the corresponding icon appears in the Windows taskbar notification area. Right-clicking the icon opens the shortcut menu with the following items:

- **Open True Image 2013** - opens the program's main window with the Synchronization tab selected.
- **Open sync folder** - if you have a single sync, choosing this item opens the synchronized folder. If you have more than one sync, this opens a submenu where you can select the desired sync folder.
- **Pause all syncs** - pauses all synchronization processes.

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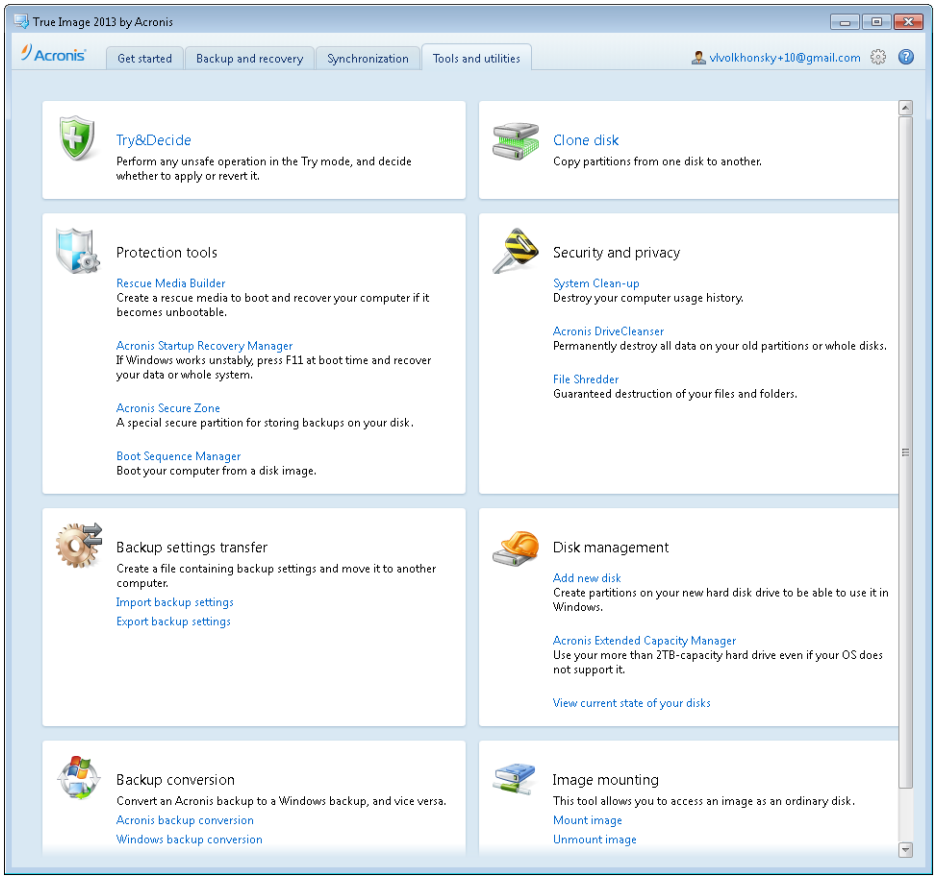
- **Resume all syncs** - restarts all synchronization processes if they have been paused.
- **Show notifications** - toggles the display of notifications at the taskbar.
- **Acronis Web site** - opens in your default browser the page with information about synchronization on Acronis Web site.
- **Help** - opens True Image 2013 Help.
- **Exit** - removes the Sync icon from the taskbar and pauses all syncs.

1.1.9.4 Tools and utilities tab

This tab allows you to select the tools and utilities provided by True Image 2013. Launch the required tool or utility by clicking the appropriate link. For more information see Tools and utilities (p. 167).


True Image 2013 by Acronis
Acronis
Get started
Backup and recovery
Synchronization
Tools and utilities
vlvolkhonsky+10@gmail.com
Try&Decide
Perform any unsafe operation in the Try mode, and decide whether to apply or revert it.
Clone disk
Copy partitions from one disk to another.
Protection tools
Rescue Media Builder
Create a rescue media to boot and recover your computer if it becomes unbootable.
Acronis Startup Recovery Manager
If Windows works unstably, press F11 at boot time and recover your data or whole system.
Acronis Secure Zone
A special secure partition for storing backups on your disk.
Boot Sequence Manager
Boot your computer from a disk image.
Security and privacy
System Clean-up
Destroy your computer usage history.
Acronis DriveCleanser
Permanently destroy all data on your old partitions or whole disks.
File Shredder
Guaranteed destruction of your files and folders.
Backup settings transfer
Create a file containing backup settings and move it to another computer.
Import backup settings
Export backup settings
Disk management
Add new disk
Create partitions on your new hard disk drive to be able to use it in Windows.
Acronis Extended Capacity Manager
Use your more than 2TB-capacity hard drive even if your OS does not support it.
View current state of your disks
Backup conversion
Convert an Acronis backup to a Windows backup, and vice versa.
Acronis backup conversion
Windows backup conversion
Image mounting
This tool allows you to access an image as an ordinary disk.
Mount image
Unmount image

1.1.9.5 Wizards and notification area icons

When you use the available True Image 2013 tools and utilities, the program will in many cases employ wizards to guide you through the operations.

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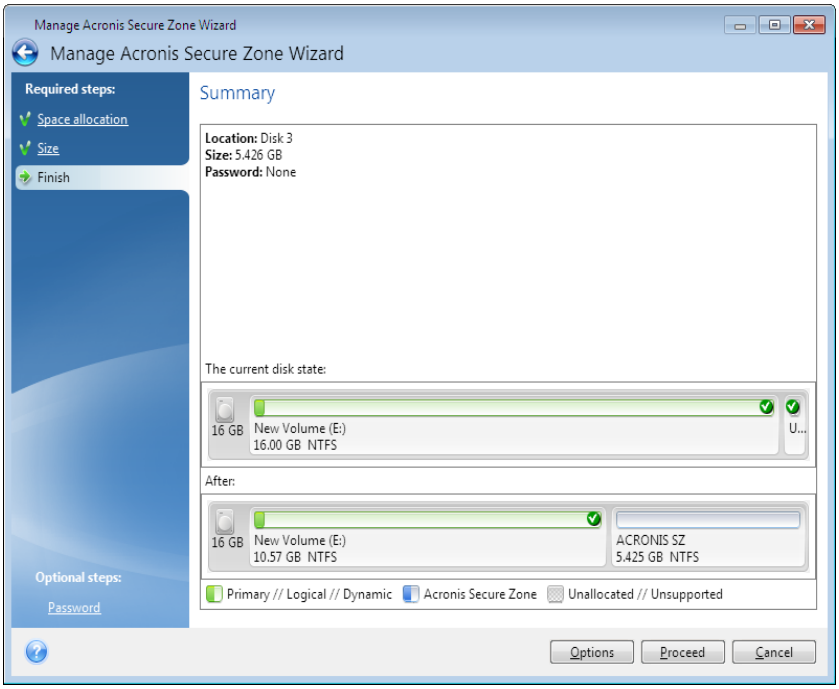
Wizards have a sidebar listing all the steps (both required and optional) needed for completing the operation. For example, see the Manage Acronis Secure Zone wizard screen shot below.



The completed steps are marked with green checkmarks. The green arrow shows the current step. After you complete all the required steps and come to the **Finish** step, the program displays the Summary screen. Check the summary of the operation to be performed and then click **Proceed** to start the operation.

Taskbar notification area icons

During most of the operations, special indicator icons appear in the Windows taskbar notification area (the right portion of the status bar with the clock). If you mouse over the icon, you will see a tool tip indicating the operation's progress or state. Right-clicking on the icon opens a shortcut menu where you can change the operation's status or cancel the operation if necessary. This icon doesn't depend on the main program window being open. It is present for background execution of scheduled backups as well.

1.1.9.6 Acronis Backup Explorer

The Acronis Backup Explorer provides you with a wealth of information on your backups: backup types, backup versions number, dates, contents, backup results, etc. In addition, the Backup Explorer allows you to explore and recover backed up data (both partitions and individual files and even file versions). It also allows for operations with backups - you can validate them, convert to Windows backup (only disk backups), mount images as disks, and delete backup versions you no longer need.

Let's have a closer look on the Acronis Backup Explorer. It has two tabs for viewing backups and their content: **Disks and partitions** (available for disk backups only) and **Files and folders**.

Disks and partitions tab

The **Disks and partitions** tab shows the backed up disks and partitions that the selected backup version contains.

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The tab shows the disks and partitions state of when the current backup version was created.

You can switch between the backup versions by using the time line at the bottom of the screen. For more information see Time line (p. 29).

To recover disks and/or partitions:

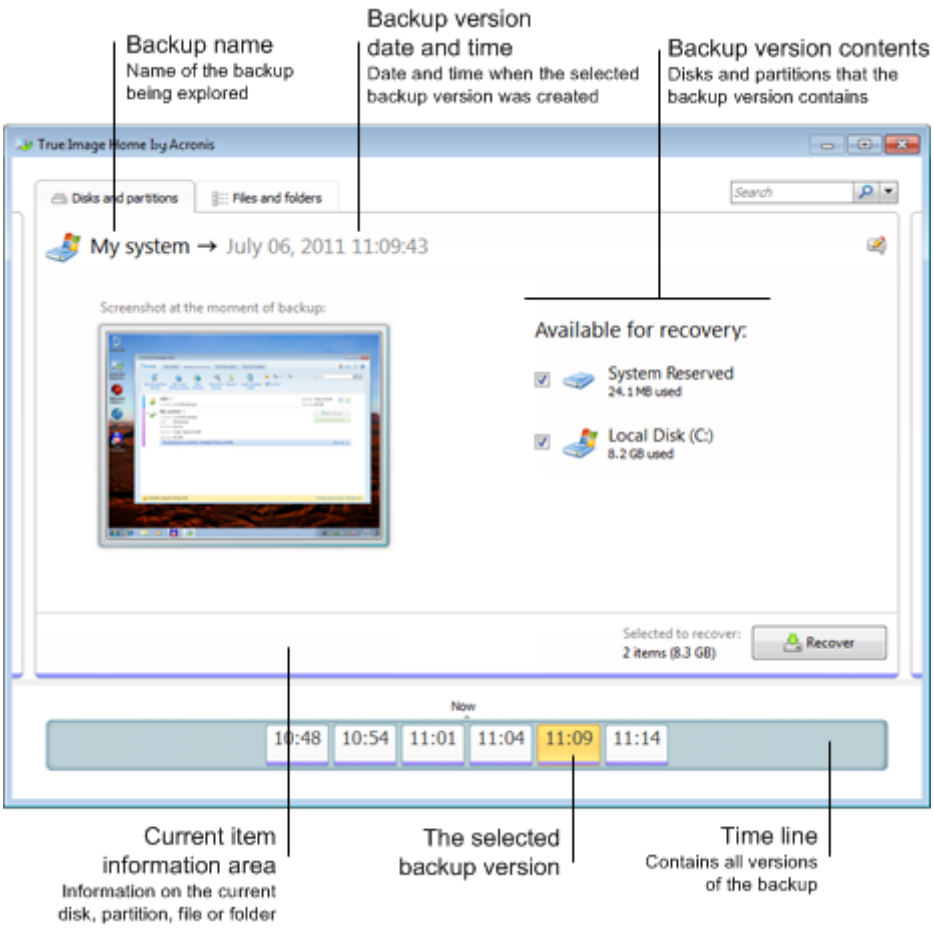
1. On the time line, select the backup version from which you want to recover your disks/partitions.

   The version's exact date and time will be displayed near the backup name. Your data will be recovered to the state it was at that point in time.
2. Select the corresponding check boxes of the disks or partitions you want to recover.
3. Click the **Recover** button.

To recover specific files and folders from the disk/partition backups:

1. Click the **Files and folders** tab.
2. Select files and folders you want to recover.
3. Click the **Recover** button.

For more information on recovering files and folders see Files and folders tab (p. 28).



Right-clicking on a backup version opens the shortcut menu with other available operations:

- **Recover** - select to recover the current backup version.
- **Validate** - select to check the integrity of the backup version data.

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- **Convert to Windows backup** (for image backups) - select to convert the backup version's TIB file to VHD file.
- **Mount** (for image backups) - select to mount the backup version as a disk.
- **Delete version** - select to delete the backup version (the backup chain will not be corrupted).
- **View** - select to set up the time line to show some additional information.

To find a file or folder you need to recover, type the file or folder name in the search field.

Both tabs also show backup comments, and allow for adding, editing and deleting comments to the selected backup version. If a backup version does not have comments, click the **Add comment** icon, then type your comments in the comments area and click the **Save** icon. If there is already a comment, you can edit it after clicking the **Edit** icon. Having finished editing, click the **Save** icon to save the changed comment or the **Cancel** icon to cancel the changes. To remove the comment, click the **Delete** icon.

Files and folders tab

The **Files and folders** tab shows the backed up files and folders contained in the selected backup version. The left-hand area of the tab shows a directory tree and the right-hand area - the contents of a selected directory tree item.

The tab shows the files and folders states of when the current backup version was created. You can switch between the backup versions by using the time line at the bottom of the screen. For more information on using the time line see Time line.

To recover files and/or folders:

1. On the time line, select the backup version, from which you want to recover your files/folders.

   The version's exact date and time will be displayed near the backup name. Your data will be recovered to the state it was at this point in time.
2. Select the corresponding check boxes of the files and folders you want to recover (see selection rules below). Short information about the selected items (their number and total size) will be displayed near the **Recover** button.
3. Click the **Recover** button.

You can also recover files and folders by dragging them to your Desktop or into a selected folder in Windows Explorer.

You cannot recover files by dragging them to an FTP, recordable CD/DVD or other optical media, as well as mounted ISO files.

Selection rules

Check boxes that correspond to the items may be in the following states:

- **Selected** (check mark in square) - this state indicates that the item is selected for recovery. A selected folder means that all items in the folder are selected.
- **Cleared** (clear square) - this state indicates that the item is not selected.
- **Mixed** (filled square) - this state is available for folders only and indicates that some items in the folder are selected and the others are not. Note that you cannot set the state by clicking the check box, but you can change it to a cleared or selected state.

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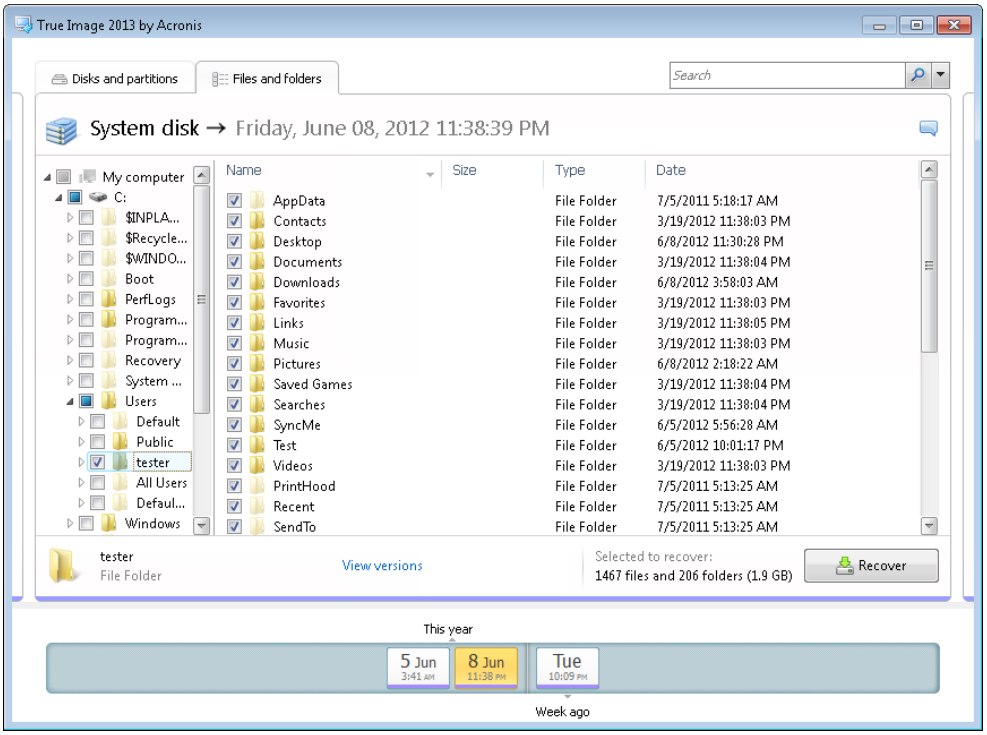
Selecting a disk, partition, file or folder to make it the current item in a list does not mean selecting it for recovery!



The majority of user interface elements located on this tab are described in the Disks and partitions tab section. Here we describe the items specific for the tab.

When you click an item, short information on this item is displayed under the browser area. The set of displayed parameters depends on the item's type. Clicking the **View versions** link opens the View Versions window with a list of all versions of the file in the backup. You can recover a desired version by its backup time.

By double-clicking on a file in the right-hand area, you will recover the file to a temporary folder. Then True Image 2013 will open the file using the associated application.

Time line

Usually the time line at the bottom of Acronis Backup Explorer screen shows information on the backup versions stored in the selected backup. The time line provides easy navigation through backup versions and allows you to recover your data to the state it was in at a certain date and time.

The squares that represent backup versions have colored stripes at the bottom. The color of the stripes depends on the backup types (violet for disk backups, turquoise for file backups, green for Nonstop Backup, and brown for other backups, e.g. created by a previous Acronis True Image Home version).

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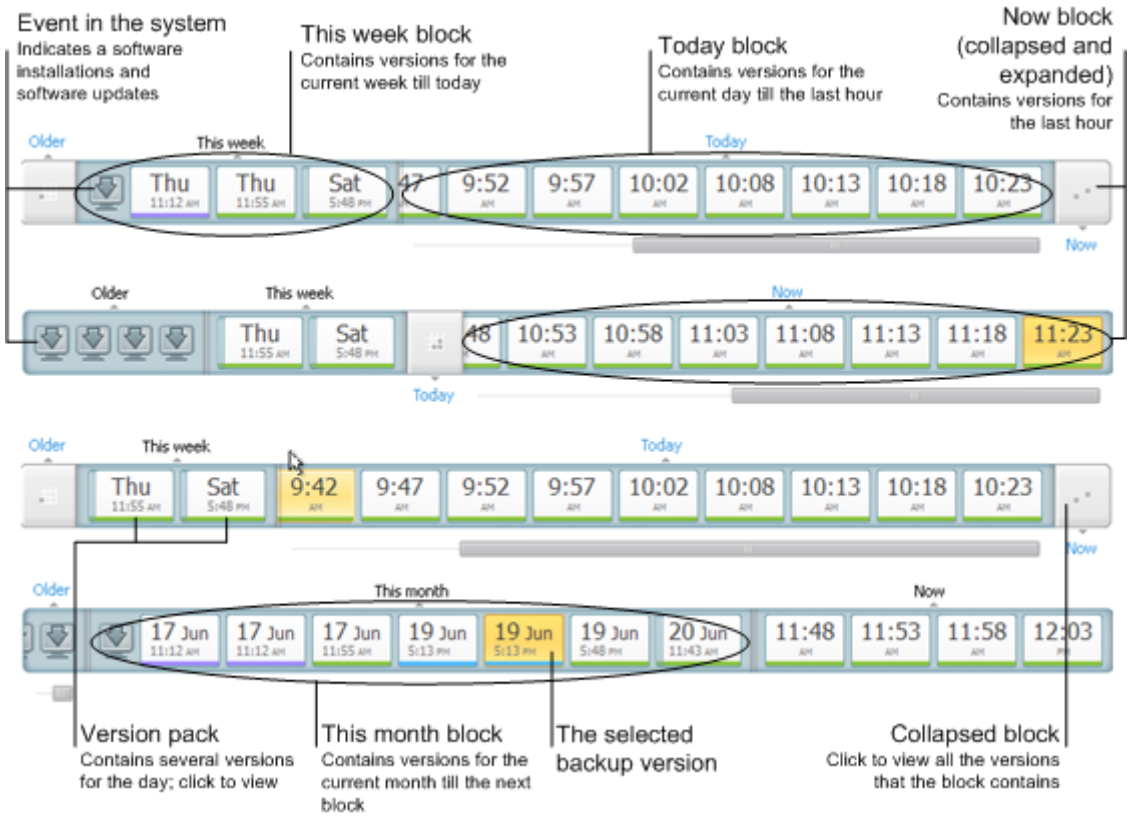
The picture below shows various states of a time line. The states vary depending on the number of backups and the time interval through which you are navigating.


Event in the system
Indicates a software installations and software updates
This week block
Contains versions for the current week till today
Today block
Contains versions for the current day till the last hour
Now block (collapsed and expanded)
Contains versions for the last hour
Older
This week
Today
Now
This month
Version pack
Contains several versions for the day; click to view
This month block
Contains versions for the current month till the next block
The selected backup version
Collapsed block
Click to view all the versions that the block contains

The "Now" interval shows backup versions created during the last hour. When using Nonstop Backup, backup versions may be created as often as every five minutes

The "Today" interval shows backup versions created from the beginning of the current day to the last hour.

The "week" interval can be named either "Week ago" or "This week".

When today is Monday, Tuesday or Wednesday, the "week" interval is named "Week ago". In such cases, the time line shows backup versions created during the previous week and from the beginning of the current week to the beginning of today.

When today is Thursday, Friday, Saturday or Sunday, the "week" interval is named "This week". In such cases the time line shows backup versions created from the beginning of the current week to the beginning of today.

The "month" interval can be named either "Month ago" or "This month".

When today is any date from the 1st to 15th day of the month, the "month" interval is named "Month ago". In that case the time line shows backup versions created during the previous month and from the beginning of the current month to the "week" interval.

When today is any date from the 16th to 31st day of the month, the "month" interval is named "This month". In that case the time line shows backup versions created from the beginning of the current month to the "week" interval.

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The "This year" interval shows backup versions created from the beginning of the current year to the “month” interval.

The "Older" interval shows backup versions created from earlier than the beginning of the current year.

Working with time intervals and backup versions

Time intervals may be expanded (when the number of backup versions fits onto the time line) or folded into a square "block". When a time interval is expanded, the squares representing backup versions may contain a "warning" or "error" icon. Such an icon indicates that warning(s) or error(s) have been written into the Log during version creation.

If more than one backup version has been created during a day within "week", "month", "year", or "older" time interval, such a date is shown on the time line using a special "version pack" icon.

If you hover over a folded block for more than half a second, a balloon will show the information about the time interval start, its end, and the number of backup versions it contains.

If you hover over a backup version within an expanded time interval, a balloon will show more detailed information about the backup version.

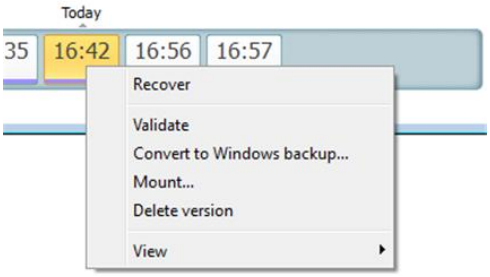
Clicking on a folded block or its name above or below the time line expands the corresponding time interval. If the number of backup versions within the time interval is too big to fit onto the time line, the horizontal scroll line allows you to navigate through the backup versions within the time interval.

If you select another folded block and there is no room for displaying all backup versions of the newly expanded block, then the current expanded block will collapse.

By clicking on a backup version, you select it in the Backup Explorer.

Shortcut menus

Right-clicking on the time line opens the shortcut menu. The menu contents will change depending on the selected item.



Disk backup version:

- Recover
- Validate
- Convert to Windows backup...
- Mount...
- Delete version

File backup version:

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- Validate
- Delete version

Nonstop backup version:

- Explore and recover
- Delete version

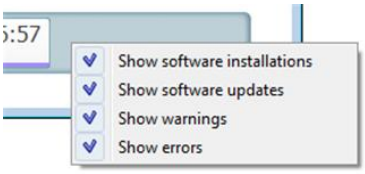
Backup version packs and time blocks:

Right-clicking on a folded version pack or time interval's block opens the shortcut menu with a single item:

- Expand

Viewing additional information on the time line

You can also set up the time line to show additional information. The appropriate commands are available in the **View** submenu. The **View** submenu is opened by right-clicking on a backup version or by right-clicking on time line's free space.



- **Show software installations** - if this item is selected, the time line shows icons that indicate moments when new programs have been installed on your computer.
- **Show software updates** - if this item is selected, the time line shows icons that indicate updates of Windows and programs installed on your computer.
- **Show warnings** - if this item is selected, the time line shows all the backup versions that have been suspended or completed with warning messages (selected by default).
- **Show errors** - if this item is selected, the time line shows failed backup versions and backup versions that have completed with errors.

1.1.9.7 Integration with Windows

During installation True Image 2013 provides closer integration with Windows. Such merging allows you to get the most out of your computer. The new user-friendly interface makes starting backup and recovery much faster.

Integration adds True Image 2013 items to the Windows Start menu, changes the properties of the True Image 2013 button on the taskbar, and adds the ability to configure and perform True Image 2013 operations using Windows 7 Control Panel (disabled by default).

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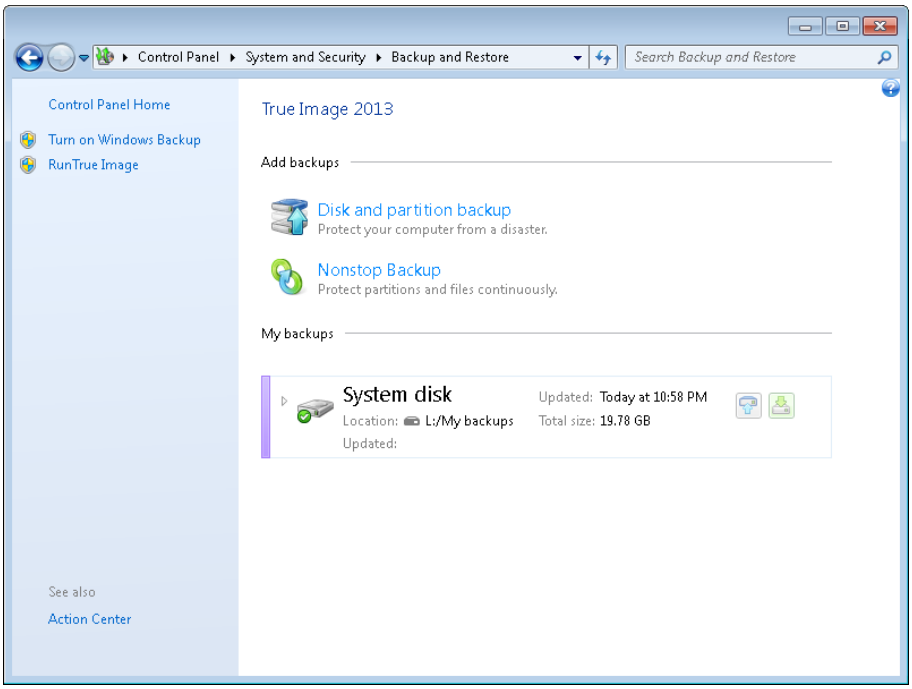
The most significant changes occur in the System and Security category of Windows 7 Control Panel. True Image 2013 replaces Windows Backup in the Backup and Restore item. If you first installed True Image 2013 without performing backups, the Backup and Restore window allows you to create a system partition backup.



When you have created backups, the Backup and Restore window will show the Nonstop Backup box and the box of your oldest disk or partition backup. You can recover the backed up data, refresh the backups, and pause/start Nonstop Backup directly from the Control Panel.

If you want to resume using Windows Backup, click **Turn on Windows Backup** on the left pane. This will remove True Image 2013 from the Control Panel and replace it with Windows Backup.

*If later you decide to integrate True Image 2013 into Windows 7 again, click a gear icon and select **Integrate True Image into Windows**.*

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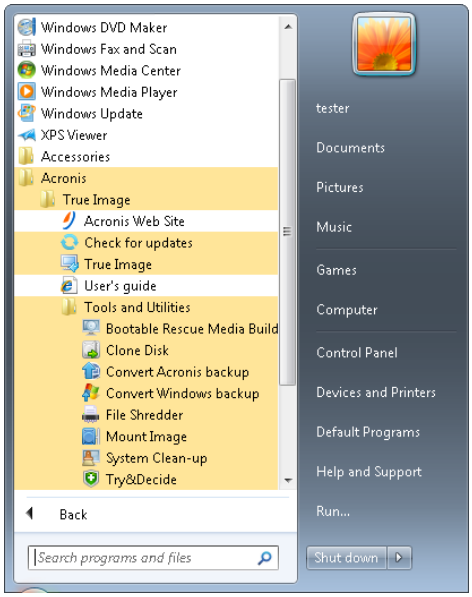
Furthermore, the **Start** menu acquires the following True Image 2013 items:



These menu items allow you to use the main program features, tools, and utilities without starting True Image 2013.

The True Image 2013 button on the Windows taskbar becomes much more informative and functional. Its shortcut menu gets additional items.

You can use the shortcut menu to start Nonstop Backup and Online Backup.

In addition, the button shows the progress and result of True Image 2013 operations.

Integration settings

You can select the Acronis components that should be integrated into Windows.

- **Acronis console in Windows Control Panel** (available for Windows 7 users only)

  Select this item to replace Windows Backup with Acronis console in the Windows Control Panel. In such a case, you will be able to manage your backups without running True Image 2013.

- **The Acronis Recovery tab in the Properties window**

  Select this item to add the **Acronis Recovery** tab to the **Properties** window. To open the window, in Windows Explorer, right-click the required file or folder, and then click **Properties**. The **Acronis Recovery** tab allows you to view and recover versions of the selected file or folder.

  *If you rename a file or folder protected by Acronis Nonstop Backup or included into a regular backup, the versions of the renamed item on the **Acronis Recovery** tab will disappear. They may reappear after certain time.*

- **Shortcut menu commands**

  In Windows Explorer, right-clicking on a file, folder, partition or disk opens the shortcut menu. Along with Windows commands, this menu may contain Acronis commands, such as **Back Up**, **Acronis Recovery**, etc.

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1.1.9.8 Login menu

Clicking **Login** opens a window for logging in to your Acronis account. After you log in, the **Login** item is replaced by the e-mail address of your account.

Clicking the e-mail address of your account opens a menu with the following items:

- **My account** - click to go to the screen where you can view and change your account information.
- **Acronis Cloud** – click to go to your account page on the Acronis Web site.
  The line below shows the percentage of your used space on Acronis Cloud.
- **Upgrade account**– click to start the procedure of upgrading to a paid subscription.
- **Log out** – click to log out from the current account. This may be useful if you have more than one account.

1.1.9.9 Settings menu

With the Settings menu you can make or change some settings of True Image 2013. To open the menu, click the gear icon at the upper-right corner of the program screen. The Settings menu contains the following items:

- **View log** - opens the log of True Image 2013 operations.
- **Integrate True Image into Windows...** - allows selecting the Acronis components to be integrated into Windows.
- **Customer Experience Program** - allows joining or leaving Acronis Customer Experience Program. For more information on the program click the **Learn more** link in the opened window.
- **Timeout settings** - allows you to specify the time interval the program should wait for your response. For more information see Timeout settings (p. 166).

1.1.9.10 Help menu

The Help menu allows you to open the program's Help, perform certain operations, view product's build number, etc. To open the menu, click the question mark icon at the upper-right corner of the program screen. The Help menu contains the following items:

- **Help** - opens the program's Help.
- **Generate system report** - click to generate an Acronis system report for sending to Acronis Customer support.
- **Customer support** - takes you to Acronis Customer support Web page.
- **Check for updates** - click to check for True Image 2013 updates (you can also disable or enable automatic checking for updates by selecting or clearing the **Automatically check for updates at startup** check box).
- **Activate** - click to activate the product.
- **Change serial number** - click to change the serial number of the product.
- **Upgrade to full version** - click to buy the full version of the product if you are using the trial version.
- **Acronis Web site** - takes you to the Acronis Web site.
- **About True Image** - shows information about True Image 2013 including the product's serial number and build number.

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1.1.9.11 Installing Acronis Hotfixes

What is an Acronis Hotfix?

Acronis Hotfix is a small update for Acronis products. It makes changes to one or more application files or registry keys but does not change an application version. A hotfix targets only a specific True Image 2013 build, and cannot be applied to any other build.

Acronis Hotfixes are distributed through Acronis Knowledge Base articles, which describe the problem to be fixed in detail. Each article can be accessed through SER or directly by searching Acronis Knowledge Base.

Advantages of installing Acronis Hotfixes:

- Hotfix installation does not require much time and resources. You do not need to wait until the next product update to fix a particular issue.
- A hotfix package is much smaller than the product installation package, though it may include files from previous hotfixes for consistency.
- You can install only necessary hotfixes, if several hotfixes are available.

All changes from hotfixes released between updates will be included in the new product versions (updates or upgrades).

How to install Acronis Hotfixes?

To check whether new Acronis Hotfixes are available, click **Check for updates** from the Help menu. A list of available hotfixes for the current build will be displayed in a table, where you can select those you want to install. When you select an Acronis Hotfix, its release notes (changes and enhancements to be applied to the product) will be displayed below.

Note, if a new True Image 2013 update is available, Acronis Hotfixes will not be displayed since each update contains all hotfixes released before.

After selecting Acronis Hotfixes you want to install, click **Download and Install** button. Also, if you select **Do not notify me about the unselected hotfixes in the future** option, a hotfix window will not appear at the program startup until a new hotfix is available. Though, if you check for updates manually (**Help** -> **Check for updates**), the window will appear even when this option is selected.

After all selected Acronis Hotfixes are installed, click **Close and run True Image** button to start the product.

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2 How to

Due to the size of this User's Guide, it is sometimes not so easy to find how to perform a particular task.

This section lists some frequently used tasks and provides links to the appropriate parts of the User's Guide.

Click the corresponding page number (or the link, if you are viewing the Help), if you need information on how to:

- protect your entire system from a disaster (p. 138)
- recover your system when your computer refuses to boot (p. 78)
- back up your photos, finance documents, music, home video (p. 44)
- recover your photos, finance documents, music, etc. (p. 94)
- continuously protect your daily work (p. 50)
- back up your e-mail (p. 47)
- recover your e-mail (p. 94)
- synchronize the contents of your folder with a folder on a computer of your relative or friend (p. 116)
- synchronize two local folders (p. 115)
- share your folder with other people (p. 122)
- create public links to your files and folders (p. 123)
- subscribe to Acronis Cloud service (p. 127)
- back up your data to Acronis Cloud (p. 128)
- recover your data from Acronis Cloud (p. 135)
- clone your disk drive (p. 188)
- automatically refresh your backups: Backup schemes (p. 60) or Scheduling (p. 157)
- create a bootable rescue media (p. 169)
- create a bootable USB flash drive (p. 174)
- make sure that your rescue media can be used when needed (p. 142)
- try some changes to your system without risk (p. 151)
- create and use the Acronis Secure Zone (p. 182)
- recover your old backup to a new hardware/migrate the system from one computer to another (p. 96)
- add and partition a new hard disk (p. 196)
- be sure that your data is not accessible to anyone else (p. 65)
- find a backup that contains the file you need to recover (p. 160)
- migrate your system to an SSD (p. 146)
- check SSD partition alignment (p. 149)
- fix SSD partition alignment (p. 149)
- create a custom WinPE 3.0 iso with your drivers (p. 180)

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3 Backing up data

True Image 2013 includes a wealth of sophisticated backup capabilities that would please even an IT professional. They allow you to back up your disks (partitions), files, and e-mail. You can choose a backup feature that suits you most or use them all. The sections below describe the backup features in more detail.

In this section

The difference between file backups and disk/partition images 38
Full, incremental and differential backups 39
Backup file naming.....39
Backing up partitions and disks.....42
Backing up files and folders 44
Backing up e-mail.....47
Using Acronis Nonstop Backup 48
Making reserve copies of your backups.....54
How to make bootable removable media with a backup.....55
Backup to various places.....56
Adding an existing backup to the list 58
Deleting backups and backup versions 58
Backup options.....58
Validating backups 75
Consolidating backup versions.....75
Cloning backup settings 77

3.1 The difference between file backups and disk/partition images

When you back up files and folders, only the files and folder tree are compressed and stored.

Disk/partition backups are different from file and folder backups. True Image 2013 stores a sector-by-sector snapshot of the disk or partition. This includes the operating system, registry, drivers, software applications, data files, and system areas hidden from the user. This procedure is called "creating a disk image," and the resulting backup is often called a disk/partition image.

By default True Image 2013 stores only the hard disk sectors that contain data.

Furthermore, True Image 2013 does not back up pagefile.sys under Windows XP and later and hiberfil.sys (a file that keeps RAM contents when the computer goes into hibernation). This reduces image size and speeds up image creation and recovery.

A partition image includes all files and folders (including hidden and system files), boot record, and FAT (file allocation table). It also includes files in the root directory and the zero track of the hard disk with the master boot record (MBR).

A disk image includes images of all disk partitions and the zero track with the MBR.

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3.2 Full, incremental and differential backups

True Image 2013 offers you three backup methods:

1) **Full**: contains all of the data at the moment of the backup creation. It forms a base for further incremental or differential backups. It can also be used as a standalone backup.

2) **Incremental**: Only those files will be included which have been changed since the LAST backup.

3) **Differential**: Only those files will be included which have been changed since the last FULL backup.

We suggest you to choose one of the following three approaches of using the backup methods:

"**Full**" - A standalone full backup might be an optimal solution if you often roll back the system to its initial state or if you do not like to manage multiple files.

"**Incremental**" - These are most useful when you need frequent backups and the ability to roll back to a specific point in time. Having created a full backup once, if you then create an incremental backup each day of a month, you will get the same result as if you created full backups every day of the month. As a rule, incremental backups are considerably smaller than full or differential backups.

> Such a backup scenario may consist of a weekly full system backup with intermediate, daily backups that cover data that was changed since the LAST backup.
>
> This scenario, while requiring less storage space and time for the daily backups, will require more work for the program to provide recovery after a system crash. In the event of a Thursday crash, the program would have to recover the Wednesday, Tuesday, and Monday incremental backups and the last FULL backup.

"**Differential**" – is an intermediate between the first two approaches. Each differential backup includes all the files changed since the last full backup. It takes less time and space than "Full", but more than "Incremental". The good thing is that recovering is simpler than for (2) - the program will have to recover the last differential backup and the last full backup.

To choose a desired backup method, you usually need to configure a custom backup scheme. For more information see Custom schemes (p. 61).

An incremental or differential backup created after a disk is defragmented might be considerably larger than usual. This is because the defragmentation program changes file locations on the disk and the backups reflect these changes. Therefore, it is recommended that you re-create a full backup after disk defragmentation.

If you lose an incremental backup or it becomes corrupted, all later incremental backups will be unusable.

3.3 Backup file naming

By default, the program creates for each task a separate folder with task's name and then stores in the folder all backups for that task (For example, D:\My Backups\System)

A backup file name has the following attributes:

- name of the task
- type of the backup (full, inc, diff :full, incremental, differential).
- number of backup, if applicable (in the form of b#)
- number of slice, if applicable (in the form of s#)

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- number of volume, if applicable (in the form of v#)
- macros, if applicable (can be in any part of a name, for example,in the beginning or in the end)

  If part of a name is not used (the backup has only one volume), this part is not added, for example, if the backup does not have volumes, it will nothave the "v" suffix. The "b" and "s" suffixes are always present.

Thus a backup name may look the following way (note that "24.05.2012" in the following example is an optional macros):

my_documents_full_b3_s1_v1.24.05.2012.tib

my_documents_full_b3_s1_v2.24.05.2012.tib

my_documents_full_b3_s1_v3.24.05.2012.tib

my_documents_full_b3_s1_v4.24.05.2012.tib

my_documents_inc_b3_s2_v1.26.05.2012.tib

my_documents_inc_b3_s2_v2.26.05.2012.tib

my_documents_inc_b3_s2_v3.26.05.2012.tib

You may use numbers in the names of your backups, but this will not affect our internal numeration. If you use our way of naming, like adding "full_b3_s5" to a name of your backup, the program adds our attributes after your name, so the name would look as follows:

my_documents_full_b3_s1_full_b3_s1.tib

If you are creating a new backup, and there is already a file with the same name, the program does not delete the old file, but adds to the new file the "-number" suffix, for example, my_documents_full_b3_s4-1.tib.

In case of consolidation we rename consolidated backup making it first in the chain, and rename all other archives so chain naming wouldn't broken:

For example, you have the following backup files:

backup_full_b1_s1.tib

backup_inc_b1_s2.tib

backup_inc_b1_s3.tib

backup_inc_b1_s4.tib

backup_inc_b1_s5.tib

backup_inc_b1_s6.tib

and want to consolidate the first three files. The resulting backup will be named as backup_full_b1_s1.tib, because it becomes a full backup and the first in the chain. All other backups will be named **backup_inc_b1_s2.tib**, **backup_inc_b1_s3.tib**, **backup_inc_b1_s4.tib**, etc.

If you are cleaning up chains without consolidation by deleting whole chains, the program will not rename all other backups, and will continue backup counting, not resetting it. For example, you had backups:

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backup_full_b1_s1.tib

backup_inc_b1_s2.tib

backup_inc_b1_s3.tib

backup_full_b2_s1.tib

backup_inc_b2_s2.tib

backup_inc_b2_s3.tib

You decided to delete the first chain, namely b1. You will have the following files left:

backup_full_b2_s1.tib

backup_inc_b2_s2.tib

backup_inc_b2_s3.tib

If you continue creating backups, the next chain will be named as follows:

backup_full_b3_s1.tib

backup_inc_b3_s2.tib

backup_inc_b3_s3.tib

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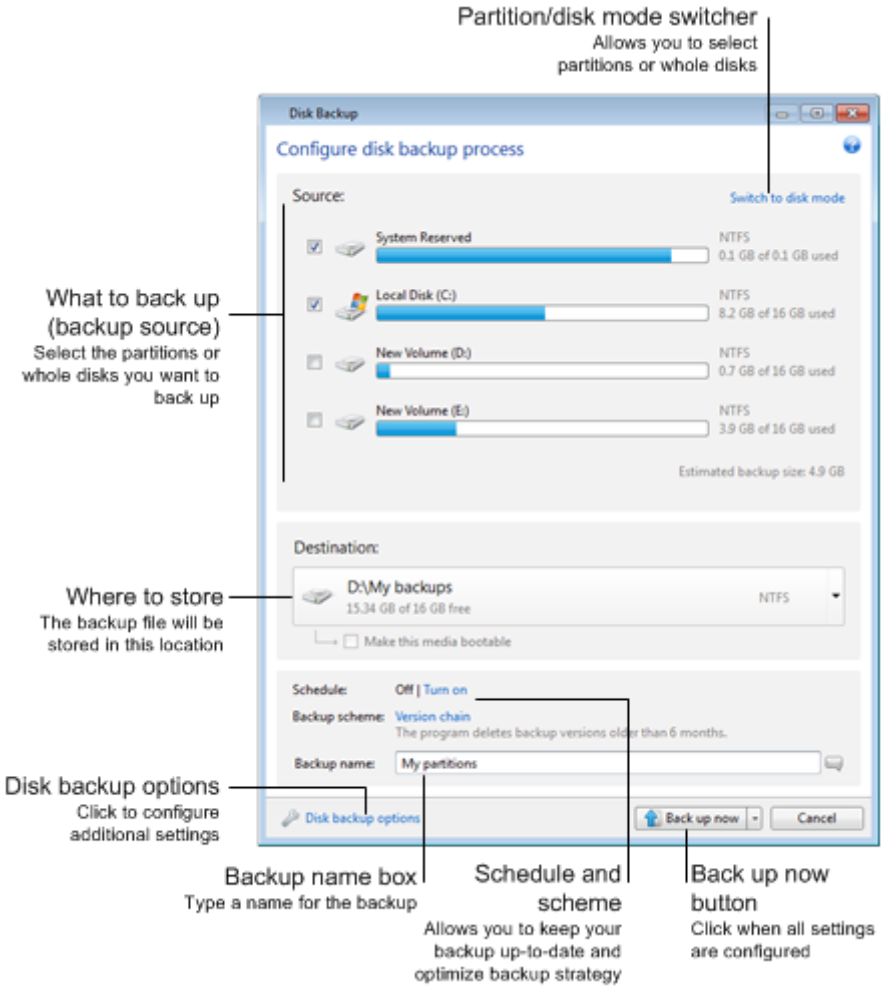
3.4 Backing up partitions and disks

To back up partitions or disks, click **Disk and partition backup** on the **Backup and recovery** tab. This opens the **Disk Backup** window.



The steps below describe how to configure a backup using most of the available image backup settings.

1. Select a partition to back up by selecting the corresponding check box. If you want to back up more than one partition, select all their check boxes in the list. If the disk has several partitions and you want to back up the whole disk, click **Switch to disk mode** in the upper-right corner and then select the disk's check box. To return to the partition selection, click **Switch to partition mode**.
2. Select a destination for backup (you can leave the default destination when it suits you or browse for a destination after clicking the down arrow to the right of the current destination and selecting **Browse...**).

   When the backup destination is any removable media (USB stick, BD, DVD...), the **Make this media bootable** check box becomes selectable. Selecting the check box results in creating a bootable recovery environment on the removable media and adding a standalone True Image 2013 version. You will be able to run True Image 2013 from the removable media on a bare-metal system or the crashed computer that cannot boot.

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If possible, avoid storing your system partition backups on dynamic disks, because the system partition is recovered in the Linux environment. Linux and Windows work with dynamic disks differently. This may result in problems during recovery.

3. If you need the backup to run on a schedule, click the link to the right of **Schedule**, turn on scheduling and set the required schedule. For more information see Scheduling (p. 157).
4. You can also change the default backup scheme by clicking on the appropriate link. For more information see Backup schemes (p. 60).

   You cannot change the backup scheme when backing up to optical media such as a DVD/BD. In this case, True Image 2013 by default uses a custom scheme with only full backups. This is because the program cannot consolidate backups stored on optical media.
5. You can exclude hidden or system files and folders from backup, as well as files matching the criteria you specify. For more information see Excluding items from backup (p. 73).
6. If you would like to assign a specific name to the backup, type the name in the **Backup name** field instead of the default one.

   You can also add useful information to the backup name. To do so, click the down arrow to the right of the destination and click **Browse...**. Select the items you want to add in the right field of the File name line:
   - add date - the backup creation date will be added
   - add time - the backup creation time will be added
   - add user name - the current user name will be added
   - add machine name - the computer name will be added
   - add task name - the name of the task that includes the backup will be added
   - add task run number - the sequence number of the task run will be added
7. Click **Disk backup options** to set the options for the backup being configured. For example, when your data disk contains sensitive information, you may want to protect the information by encryption. You can also choose to validate the backup immediately after its creation, though it can be done later. For more information see Backup options (p. 58).
8. When you set up the backup as needed, you can run it immediately by clicking the **Back up now** button. If you want to run the backup later or on a schedule, click the down arrow to the right of the **Back up now** button and select **Later** in the drop down list to save the settings you have made.

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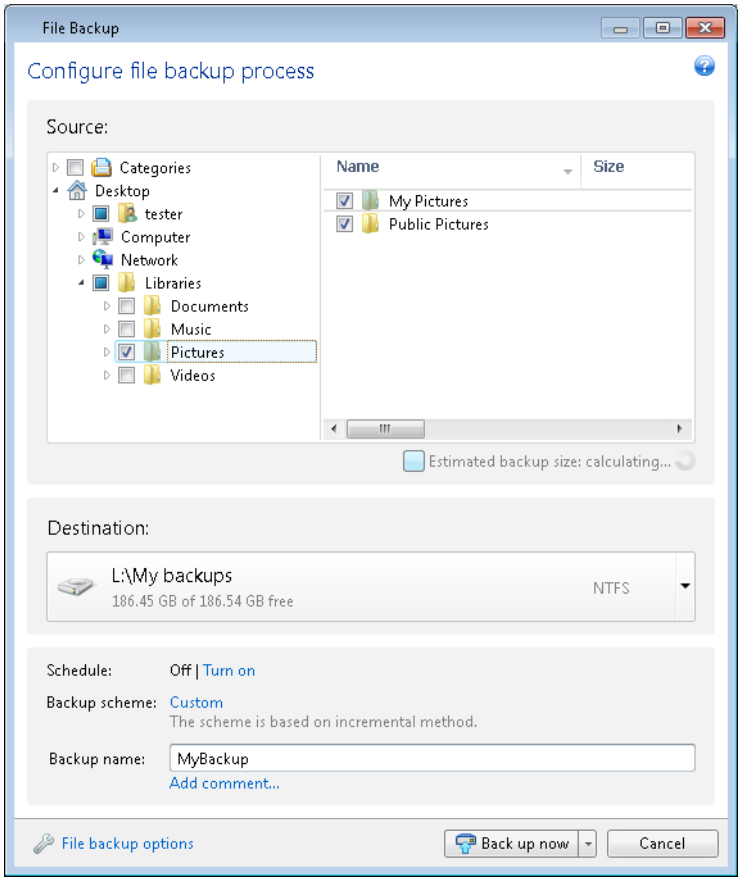
3.5 Backing up files and folders

To back up files and/or folders, click **Other backups** on the **Backup and recovery tab** and then select **File backup**. This opens the **File Backup** window.



Let's consider how to use this backup type for backing up a folder.

1. Select the folder on the directory tree in the **What to back up** area. The right side will show the folder contents with all the files and subfolders selected. There you can unselect the files you do not need to back up, if any.
2. Select a destination for backup (you can leave the default destination or browse for a destination after clicking the down arrow to the right of the current destination and selecting **Browse...**).
3. By default the program will assign the name of the folder to be backed up to the backup, but if you would like to assign another name, type the name in the **Backup name** field.

   You can also add useful information to the backup name. To do so, click the down arrow to the right of the destination and click **Browse...**. Select the items you want to add in the right field of the File name line:

   - add date - the backup creation date will be added
   - add time - the backup creation time will be added
   - add user name - the current user name will be added
   - add machine name - the computer name will be added
   - add task name - the name of the task that includes the backup will be added
   - add task run number - the sequence number of the task run will be added

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4. Click the **Back up now** button if you want to run backup immediately. You can also delay the start of backup for up to 6 hours by clicking the down arrow to the right of this button and selecting a delay interval from the dropdown list.

When you need to change the default backup options, click **File backup options** and set the options you require.

You can also change the default backup scheme by clicking on the appropriate link. For more information see Backup schemes (p. 60).

You cannot change the backup scheme when backing up to optical media such as a DVD/BD. In this case, True Image 2013 by default uses a custom scheme with only full backups. This is because the program cannot consolidate backups stored on optical media.

If you want to run the backup on a schedule, click the **Turn on** link to set up a schedule (for more information see Scheduling (p. 157)). To run the backup on the schedule, click the down arrow to the right of the **Back up now** button and select **Later** in the drop down list. The backup with the settings you have made will run according to the schedule. You can also start the backup manually later on the **Backup and recovery** tab.

The program allows you to back up files by categories. For more information see Data categories (p. 45).

You can exclude hidden or system files and folders from backup, as well as files matching the criteria you specify. For more information see Excluding items from backup (p. 73).

3.5.1 Data categories

The program allows you to back up files by categories. When selecting the file category(ies), you automatically select for backup all files of associated types found on the computer's hard drives. You can use the following default categories: **Video**, **Music**, **Images**, **Finance**, **E-Books**, and **Documents**. Furthermore, you can add any number of custom categories containing files and folders. The new categories will be saved and displayed along with the above. You can change the contents of any custom or default file category (edit the category) or delete it. The default file categories cannot be deleted.

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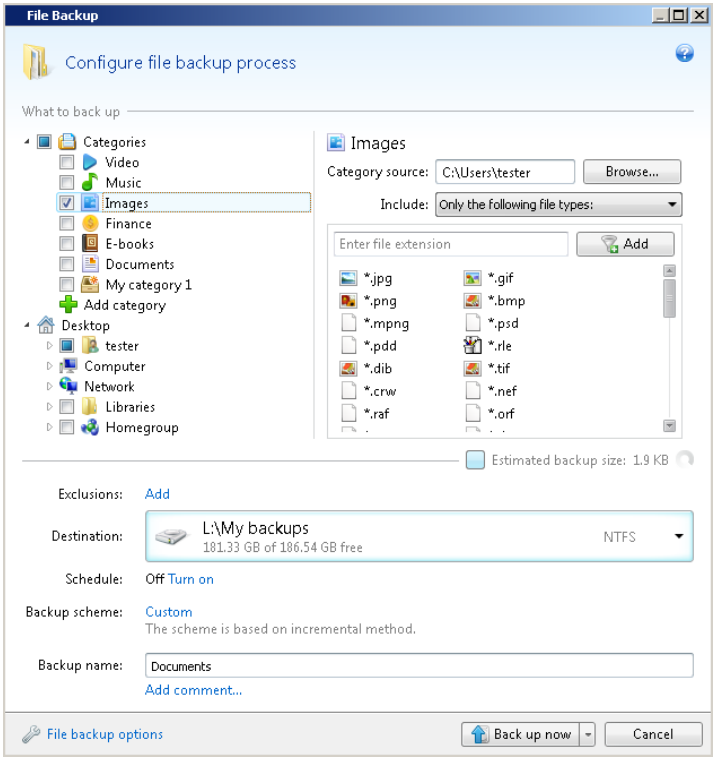
To add a custom data category, click **Add category.** To change the default name of a custom category, double-click the name and enter a new one. Select the data source (e.g. a folder) for the new category by clicking the **Browse...** button. By default the new category will contain **Only the following file types**, but you can apply filters to select the specific types of files that you wish or do not wish to back up.



To set a filter, select its type: **Only the following file types** or **All data except the following file types**.

You can add file types for the selected filter by entering their extensions in the appropriate field one at a time and then clicking **Add**.

The added file types appear in the window below.

3.5.2 Support for Zip format

If you use the zip format instead of the tib format, you will be able to retrieve files from backups anywhere without True Image 2013.

For example, you can back up files to a USB stick at the office and retrieve those backed up files on your notebook at home without installing True Image 2013. This is true because the most widely used operating systems (Microsoft Windows and Mac OS X) have built-in support of the zip file format.

Please note that built-in support of zip files in Windows does not cover operations with multivolume zip archives, and zip backups exceeding 4GB in size or which contain files of more than 4GB each. So if file size of your zip backup exceeds 4GB, you will not be able to recover files from that backup without using True Image 2013.

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The Zip format is available when backing up files, folders or when making reserve copies of your backups.

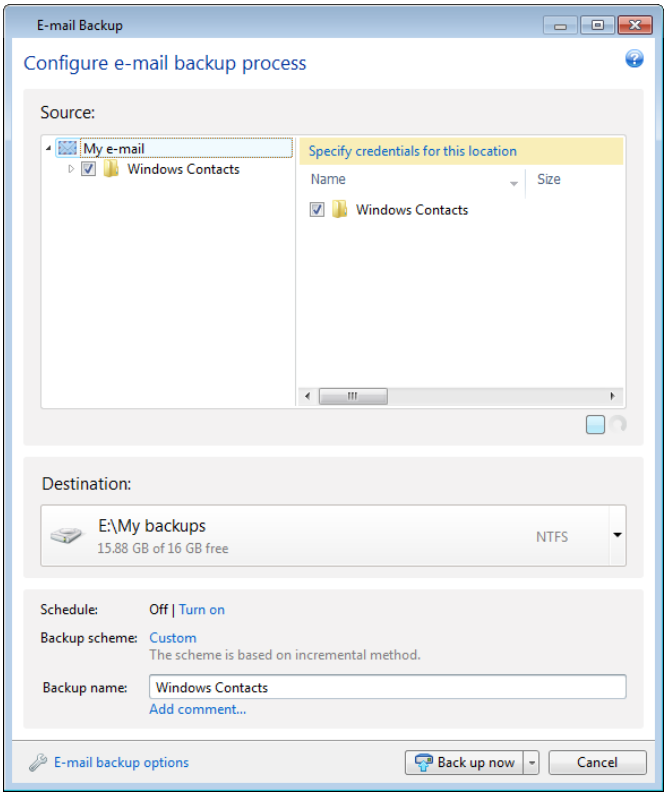
True Image 2013 gives the zip format most of the functionality available for the tib format. You can schedule backups, validate zip backups, recover files and folders from zip backups, make incremental and differential backups, etc.

However, it does not provide password protection and encryption.

True Image 2013 can recover and validate only its own zip backups. If a zip archive was created by a file archiver program, it cannot be recovered and validated by True Image 2013.

3.6 Backing up e-mail

True Image 2013 allows you to back up messages, accounts and settings for Microsoft Outlook 2003, 2007, 2010, Microsoft Outlook Express, Windows Mail, and Windows Live. E-mail backup is a subset of file-level backups that backs up predefined folders and requires minimum user selections. However, if need be, you can select Microsoft Outlook components and folders individually.



You can select the following items:

- Messages contained in .PST/.DBX Database Files
- E-mail accounts

For Microsoft Office Outlook 2003, 2007, 2010:

- Mail Folders
- Calendar
- Contacts

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- Tasks
- Notes
- Signatures
- News Folders
- User Settings
- Address Book

For Microsoft Outlook Express:

- Mail Folders
- Address Book (select **Windows Address Book**).

True Image 2013 provides backup of IMAP (Internet Messages Access Protocol) mail folders for Microsoft Outlook. This means that you can back up folders stored on a mail server. For Microsoft Outlook Express and Windows Mail only backup of local e-mail folders is available.

Take note that True Image 2013 does not support Unicode characters in the items backed up using the **E-mail backup** type.

To back up your E-mail:

1. On the **Backup and recovery** tab, click **Other backups** and then select **Mail backup**. This will open the **E-mail Backup** window.
2. Select the mail items you want to back up in the **What to back up** area. The right side will show the item contents with all subitems selected. There you can unselect the subitems you do not need to back up, if any.
3. Select a destination for backup (you can leave the default destination or browse for a destination after clicking the down arrow to the right of the current destination and selecting **Browse...**).
4. The program will assign a default name to the backup, but if you would like to assign another name, type the name in the **Backup name** field.
5. Click the **Back up now** button if you want to run backup immediately. You can also delay the start of backup for up to 6 hours by clicking the down arrow to the right of this button and selecting a delay interval from the dropdown list.

Note that you will have to specify your Windows account name and password. This is done for confidentiality reasons. See details in Windows account (p. 71).

When you need to change the default backup options, click **E-mail backup options** and set the options as required. You can also change the default backup scheme by clicking on the appropriate link. For more information see Backup schemes (p. 60).

If you want to run the backup on a schedule, click the **Turn on** link to set up a schedule (for more information see Scheduling (p. 157)). To run the backup on the schedule, click the down arrow to the right of the **Back up now** button and select **Later** in the drop down list. The backup where you have made the settings will run according to the schedule. You can also start the backup manually later on the **Backup and recovery** tab.

3.7 Using Acronis Nonstop Backup

Acronis Nonstop Backup provides easy protection of your disks and files. It allows you to recover entire disks, individual files and their different versions.

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The main purpose of Acronis Nonstop Backup is continuous protection of your data (files, folders, contacts, etc.), though you can use it to protect partitions as well. If you choose to protect an entire partition, you will be able to recover the partition as a whole using the image recovery procedure.

You cannot use Acronis Nonstop Backup for protecting data stored on external hard drives.

How it works

Once you start Acronis Nonstop Backup, the program will perform an initial full backup of the data selected for protection. Acronis Nonstop Backup will then save changes in the protected files (including open ones) every five minutes, so that you will be able to recover your system to an exact point in time.

Usually the different states of the protected data will be backed up at 5-minute intervals for 24 hours.

The older backups will be consolidated in such a way that True Image 2013 will keep daily backups for the last 30 days and weekly backups until all Nonstop Backup data destination space is used.

Note, that if Acronis Nonstop Backup protects a non-system partition and no changes have occurred for 5 minutes since the last backup, the next scheduled backup will be skipped. Acronis Nonstop Backup will wait for a significant data change and will create a new incremental backup only when such change has been detected. In those cases, the actual time interval will exceed 5 minutes. In addition, if, for instance, you are working in Word and do not use the "Save" operation for an hour, changes in the Word document will not be backed up every five minutes, because True Image 2013 checks file changes on the disk and not in the memory.

The consolidation will be performed every day between midnight and 01:00 AM. The first consolidation will take place after the Nonstop Backup has been working for at least 24 hours. For example, you have turned on the Nonstop Backup at 10:00 AM on July 12. In this case the first consolidation will be performed between 00:00 and 01:00 AM on July 14. Then the program will consolidate the data every day at the same time. If your computer is turned off between 00:00 and 01:00 AM, the consolidation will start when you turn the computer on. If you turn off Nonstop Backup for some time, the consolidation will start after you turn it on again.

You may think that at these backup rates the storage will fill in no time. Do not worry as True Image 2013 will back up only so called "deltas". This means that only differences between old and new versions will be backed up and not whole changed files. For example, if you use Microsoft Outlook or Windows Mail, your pst file may be very large. Furthermore, it changes with each received or sent E-mail message. Backing up the entire pst file after each change would be an unacceptable waste of your storage space, so True Image 2013 backs up only its changed parts in addition to the initially backed up file.

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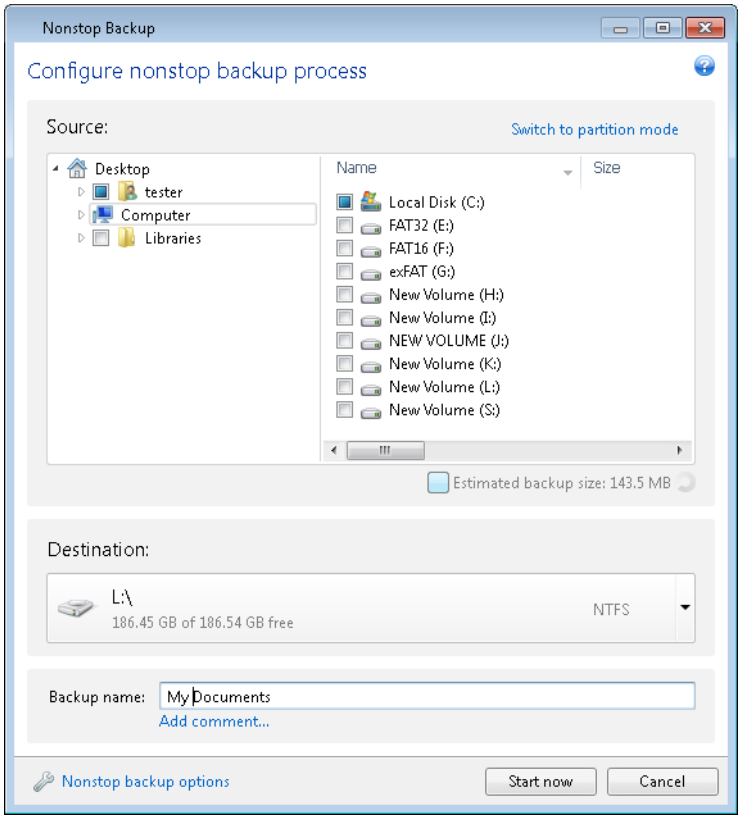
3.7.1 Protecting your data continuously

Let's consider how you can use Nonstop Backup for protecting your data.



To protect your data continuously:

1. Click **Other backups** on the **Backup and recovery** tab and then select **Nonstop Backup**. This opens the **Nonstop Backup** window.
2. Select on the directory tree in the **What to back up** area an item to be protected by Nonstop Backup. The right side shows the item contents with all the files and subfolders selected. There you can unselect the files you do not need to protect. If you need to protect more items, just continue selecting items on the directory tree in the same way.
3. Select a destination for nonstop backup (you can leave the default destination or browse for a destination after clicking on the current destination. Select a suitable destination from the dropdown list). For more information on selecting and managing Nonstop Backup storage see Acronis Nonstop Backup data storage (p. 52).
4. The Nonstop Backup will get a default name, but if you would like to assign another name, type the name in the **Backup name** field.
5. Click the **Start now** button to start protecting the selected data immediately.

*Nonstop Backup and Try&Decide cannot work simultaneously. If you click the **Start now** button when the Try mode is turned on, the program will display a message that Nonstop Backup cannot start while you are working in the Try mode. To start Nonstop Backup, you will need to finish the current Try&Decide session.*

You can change the Nonstop Backup settings any time. To do so, click the gear icon in the Nonstop Backup box and then select **Edit settings** in the Operations menu. Save the edited Nonstop Backup settings by clicking the **Save** button and Nonstop Backup will immediately start working with the new

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settings. If you have changed the Nonstop Backup destination, the program will create a new full backup of the data to be protected on the new Nonstop Backup storage.

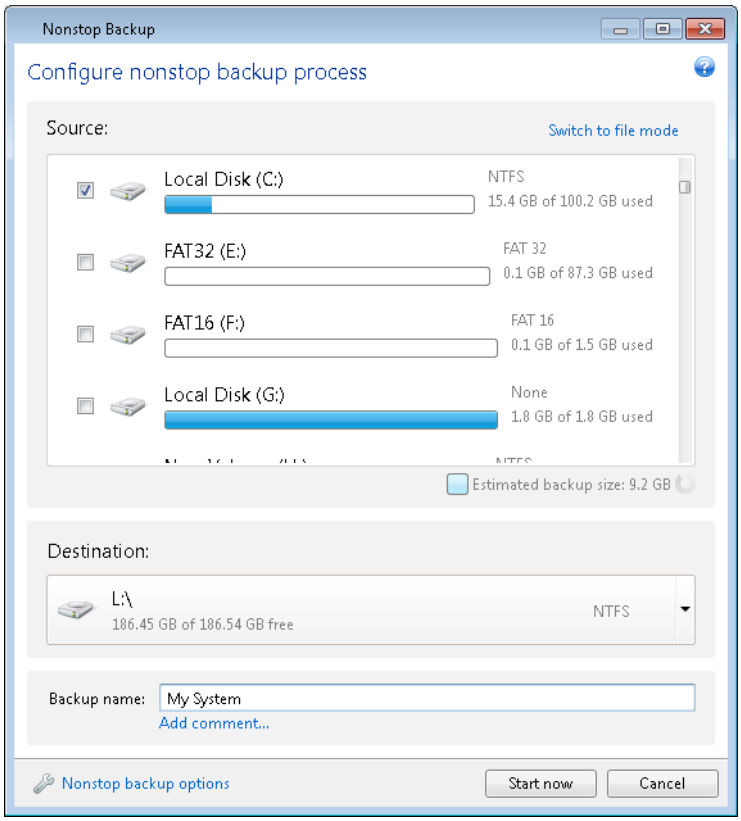
*You can also include files and folders into Nonstop Backup by selecting them in Windows Explorer and choosing **Include in Nonstop Backup** in the shortcut menu that opens by right-clicking on the selected item.*

3.7.2 Protecting your system continuously

You can use Acronis Nonstop Backup for protecting entire system partition as well. If you have sufficient storage space, Acronis Nonstop Backup can simultaneously protect more than one partition.

To protect the system partition continuously:

1. Click **Other backups** on the **Backup and recovery** tab and then select **Nonstop Backup**. This opens the **Nonstop Backup** window.



2. Click **Switch to partition mode** in the upper right-hand corner of the Nonstop Backup window. The partitions that exist on the local hard disks will appear in the **What to back up** area. Select the system partition by selecting the appropriate check box.
3. Select a destination for nonstop backup (you can leave the default destination or browse for a destination after clicking on the current destination and selecting a suitable destination from the dropdown list).

   You cannot select the partition to be protected as the destination for Nonstop Backup storage.
4. The nonstop backup will get a default name, but if you would like to assign another name, type the name in the **Backup name** field.
5. Click the **Start now** button to start protecting the selected partition(s) immediately.

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*Nonstop Backup and Try&Decide cannot work simultaneously. If you click the **Start now** button when the Try mode is turned on, the program will display a message that Nonstop Backup cannot start while you are working in the Try mode. To start Nonstop Backup, you will need to finish a Try&Decide session.*

You can exclude from protection files that match the criteria you specify. To add exclusion criteria, click the **Nonstop backup options** link. While adding criteria, you can use the common Windows wildcard characters. For more information see Excluding items from backup (p. 73).

3.7.3 Acronis Nonstop Backup data storage

Acronis Nonstop Backup data storage can be created on local hard disk drives (both internal and external).

In many cases an external hard disk will be the best choice for Nonstop Backup data storage. You can use an external disk with any of the following interfaces: USB (including USB 3.0), eSATA, FireWire, and SCSI.

You can also use an NAS as the storage, but with one limitation - it must accessible with the SMB protocol. It does not matter whether an NAS share you want to use for the storage is mapped as a local disk or not. If the share requires login, you will need to provide the correct user name and password. For more information see Authentication settings (p. 141). True Image 2013 remembers the credentials and the subsequent connections to the share do not require login.

When an external hard disk or NAS is unavailable, the Nonstop Backup destination can be an internal disk, including a dynamic one. Please note that you cannot use a partition to be protected as a Nonstop Backup storage. If your computer has a single hard disk drive with a single partition, but you want to use Acronis Nonstop Backup anyway, you can create Acronis Secure Zone and use it as the Nonstop Backup data storage.

Before creating Acronis Nonstop Backup data storage, True Image 2013 checks whether the selected destination has enough free space. It multiplies the volume of data to be protected by 1.2 and compares the calculated value with the available space. If the free space on the destination satisfies this minimum storage size criterion, the destination can be used for storing Nonstop Backup data.

Managing Acronis Nonstop Backup data storage

Inevitably the Acronis Nonstop Backup data storage becomes full after a period of time which depends on the selected Nonstop Backup destination and the volume and composition of the data protected by Acronis Nonstop Backup.

When the free space on the storage becomes less than 200 MB, the program will alert you. You can choose another destination without losing the previously backed up data. You will be able to recover the data backed up on the old storage. Note that after selecting a new destination, True Image 2013 creates a new full backup of the data selected for protection by Nonstop Backup.

One more way of managing the Acronis Nonstop Backup storage is by deleting the backup versions you no longer need. To clean up the storage, click the gear icon on the Nonstop Backup box to open the Operations menu and then select **Clean up...**. True Image 2013 displays a window allowing you to select a period of time for deleting the backup versions created during that period. Select the required period and click **OK**.

You can clean up only the active Acronis Nonstop Backup storage.

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You can also completely clean up the Acronis Nonstop Backup storage by selecting **Delete** in the Operations menu of a Nonstop Backup box. If you select the active Nonstop Backup box, the deletion stops operation of Acronis Nonstop Backup.

3.7.4 Nonstop Backup - Frequently asked questions

Why does Acronis Nonstop Backup pause on its own? - This is the designed behavior of Acronis Nonstop Backup. When the system load rises to a critical level, Acronis Nonstop Backup receives the overload alarm from Windows and pauses itself. This is done to aid Windows relieve the load caused by other applications. The overload can be caused by running resource-intensive applications (for example, performing a deep system scan with your antivirus software).

In such a case Nonstop Backup automatically pauses and you cannot restart it. After pausing, Acronis Nonstop Backup gives the system one hour to relieve the load and then attempts to restart.

The automatic restart count for Acronis Nonstop Backup is 6. This means that after the first automatic restart Acronis Nonstop Backup will attempt to restart five more times with intervals of exactly one hour between attempts.

After the sixth unsuccessful attempt, Acronis Nonstop Backup will wait for the next calendar day. On the next day the automatic restart count will automatically reset. When not interfered with, Acronis Nonstop Backup performs six restart attempts per day.

The restart attempt count can be reset by doing any of the following:

- Restarting Acronis Nonstop Backup service;
- Rebooting the computer.

Restarting Acronis Nonstop Backup service will only reset the restart count to 0. If the system is still overloaded, Acronis Nonstop Backup will pause again. An Acronis Support Knowledge Base article at http://forum.acronis.com/forum/14958 describes the procedure for restarting the Acronis Nonstop Backup service.

Rebooting the computer will reset the load and the restart count. If the system overloads again, Acronis Nonstop Backup will pause.

Why does Acronis Nonstop Backup sometimes cause a high CPU load? - This is the expected behavior of Acronis Nonstop Backup. This may happen on restart of a paused Acronis Nonstop Backup if a considerable amount of protected data has been modified during the pause.

For example, if you manually pause the Acronis Nonstop Backup that you use for protecting your system partition and then install a new application. When you restart Acronis Nonstop Backup, it loads the CPU for some time. However, the process (afcdpsrv.exe) then goes back to normal.

This happens because Acronis Nonstop Backup needs to check the backed up data against the data that have been modified during the pause to ensure protection continuity. If there was a considerable amount of data modified, the process may load CPU for some time. After the check is done and all the modified data is backed up, Acronis Nonstop Backup goes back to normal.

Can I have Acronis Nonstop Backup storage on an FAT32 partition of a local hard disk? - No, only an NTFS partition can be used as the storage. This limitation is due to the fact that Acronis Nonstop Backup needs the sparse file attribute to function (for example, to perform autoconsolidation). The sparse file attribute was introduced in NTFS.

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Can I set up Acronis Nonstop Backup storage on a network share or NAS? - Yes, Acronis Nonstop Backup supports network shares, mapped drives, NAS and other network attached devices with one limitation - they must use the SMB protocol.

How does manual clean up of Acronis Nonstop Backup storage work? - You can clean up Acronis Nonstop Backup storage by deleting the backed up data for a certain period of time. For example, you started Acronis Nonstop Backup of your system partition on August 15, 2011. It has been protecting your partition since that day. Let's suppose that today is December 15, 2011 and your Acronis Nonstop Backup storage is almost full. You decide to clean up unnecessary data to free up some storage space. To clean up the storage, click the gear icon in the Nonstop Backup box to open the Operations menu and then select **Clean up...**. True Image 2013 displays a window allowing you to select a period of time for deleting the backup versions created during that period. Let's suppose that you did not make important changes to the system during a period from September 1 to December 1. Select the period and click **OK**. The program will delete all backup versions created during the selected period and consolidate the remaining backup versions to keep their consistency. Let's consider some cases to explain which data is deleted and which data is kept. First let's consider a system file, for example, notepad.exe. It was backed up during the initial full backup on August 15 and naturally did not change since then. In this case the file will remain in Nonstop Backup after clean up. And now suppose you installed a game on September 15, played for some time, and then uninstalled the game on October 5. In this case all files related to the game will be deleted from Nonstop Backup. One more example: you started to write your master's thesis using Microsoft Word on November 16. In this case, all thesis file versions backed up from November 16 to December 1 will be deleted and only the versions from December 2 to today will remain. To sum up the above, all data modifications made during the selected period will be lost. All files that did not change since the initial full backup made on August 15 and all data modifications made before September 1 and after December 1 will be kept.

How to pause Acronis Nonstop Backup? - You can pause Nonstop Backup by clicking the gear icon on the Nonstop Backup box and selecting **Stop** in the menu. To resume Nonstop Backup, click the gear icon again and select **Start** in the menu. If the Nonstop Backup box is expanded, you can also pause and resume Nonstop Backup by clicking the corresponding buttons in the box.

How can I turn off and delete Acronis Nonstop Backup? - To turn off and delete Acronis Nonstop Backup, click the gear icon on the Nonstop Backup box of the **Backup and recovery** tab and select **Delete** in the menu. This deletes all the Nonstop Backup data.

3.8 Making reserve copies of your backups

You can create reserve copies of your backups and save them on the file system, a network drive, or a USB flash drive. A reserve copy may help you if the main backup becomes corrupted or if the storage of the main backup fails.

In addition to enhancing the backed up data security with replication, this feature allows you to copy a set of documents, for example, to a USB stick for working on them at home. So now you can perform a normal backup and copy the same files to a USB stick or any local hard drive.

A reserve copy always contains all the files selected for backup, that is, when creating a reserve copy the program always makes a full backup of the source data. You cannot make a reserve copy in the form of an incremental or differential backup.

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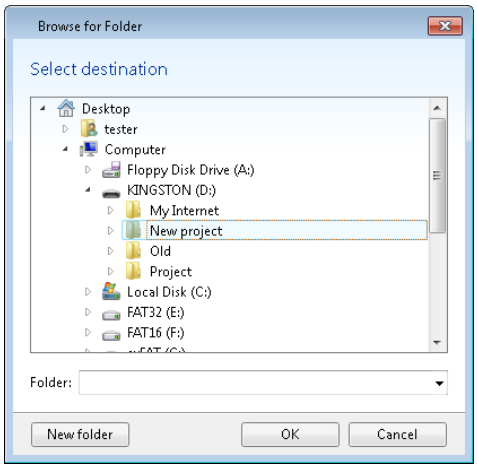
Also remember that the operation will take more time, because normal backup and reserve copying are performed one after another and not simultaneously. Furthermore, you will need more storage space or an additional storage device.

For example, to make a reserve copy of some files on a USB stick:

1. While configuring a backup, click the **File backup options** link, expand the **Backup reserve copy** item and then select the **Create a reserve copy of my backups** box. This opens the **Browse for folder** window.
2. Select the destination and create a folder for a reserve copy by clicking the **New folder** button.



3. Finish configuring your backup as usual.
4. Click **Back up now**.

Please be aware that CD/DVDs are not supported as locations for reserve copies.

3.9 How to make bootable removable media with a backup

While configuring a disk or partition backup on removable media, you can make the media bootable. True Image 2013 can make the following media bootable:

- DVD/BD
- USB flash drive formatted in FAT32

This may be a viable option if your backup is not very large. For example, we strongly recommend not to back up to DVDs if the number of discs used will be more than three. If your backup takes several DVDs, recovery will require a lot of disc swapping.

Here is the procedure to use:

1. Start True Image 2013, go to **Backup and recovery** and select **Disk and partition backup**:
2. Select a partition or the whole disk to back up.
3. As a backup destination, select the removable media (DVD/BD/Flash drive)
4. Select the **Make this media bootable** check box:

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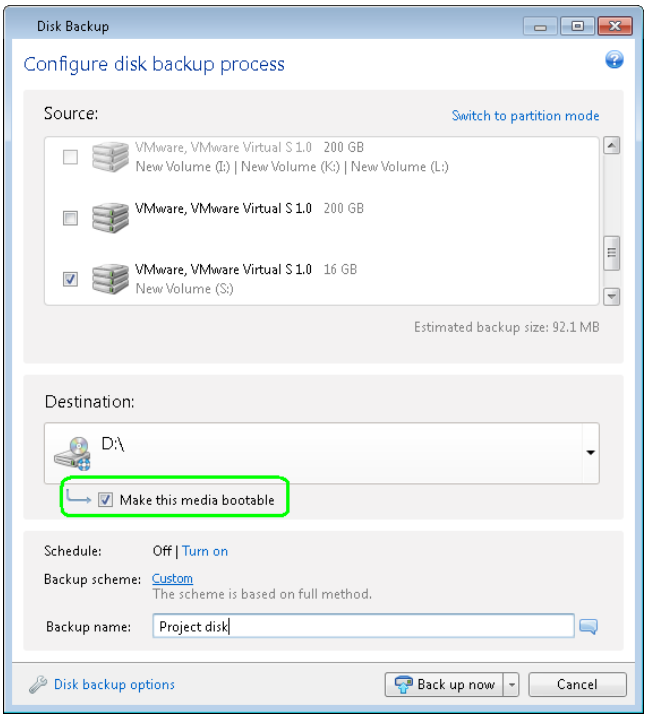
If you select an internal or external hard disk as the destination, this option will be disabled.


Disk Backup
Configure disk backup process
Source:
Switch to partition mode
VMware, VMware Virtual S 1.0 200 GB
New Volume (I:) | New Volume (K:) | New Volume (L:)
VMware, VMware Virtual S 1.0 200 GB
VMware, VMware Virtual S 1.0 16 GB
New Volume (S:)
Estimated backup size: 92.1 MB
Destination:
D:\
Make this media bootable
Schedule: Off | Turn on
Backup scheme: Custom
The scheme is based on full method.
Backup name: Project disk
Disk backup options
Back up now
Cancel

5. Click **Back up now**.

If the backup does not fit one disc (for example, DVD), the file will be split into several volumes. The first disc will be the bootable one.

If you plan to perform this backup regularly, you can make the appropriate settings in the **Disk backup options**. See Removable media settings (p. 68).

Bootable media with a backup file can only be created when using True Image 2013 in Windows. It is impossible to create such media in a bootable environment.

Additional information

Sometimes True Image 2013 may not recognize a USB flash drive as suitable for making it bootable. In such a case, you can try to prepare the drive. See How to prepare a USB flash drive for Acronis Media Builder (p. 181).

Though True Image 2013 cannot make a bootable USB hard disk, you may try using third-party tools. For example, see the procedure suggested by MudCrab, an Acronis True Image Home Forum MVP at http://www.themudcrab.com/acronis_grub4dos.php.

3.10 Backup to various places

True Image 2013 offers you flexibility in choosing destinations for your backups. You can save full, incremental and differential backup versions to different places including a network share, CD/DVD, USB stick, as well as any local internal or external hard drive.

You can save backup versions to different destinations by changing the backup destination when editing the settings of a selected backup. For example, after you save the initial full backup to an external USB hard drive, you can change the backup destination to a USB stick by editing the backup settings. The subsequent incremental or differential backups will be written to the USB stick.

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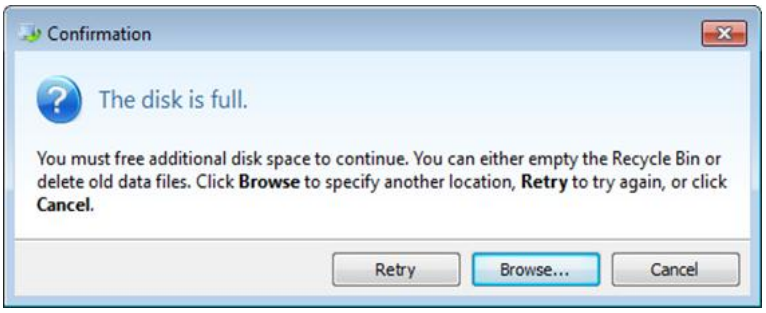
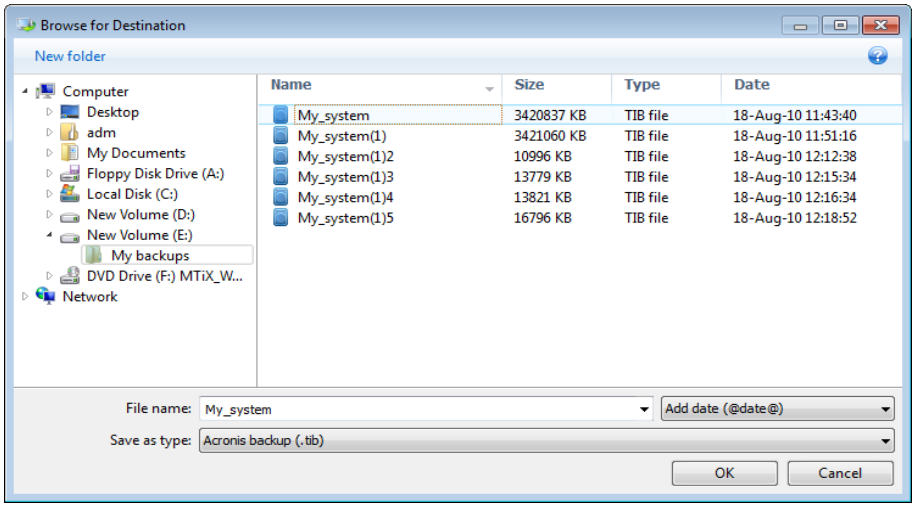
You cannot use Acronis Secure Zone as one of the places for storing a part of backup versions belonging to the same backup "chain", because such backup versions may be automatically deleted during automatic backup consolidation in Acronis Secure Zone. As a result, the backup chain will be corrupted. In addition, the feature does not work with FTP servers.

One more useful aspect of this feature is the ability to split backups "on-the-fly". Suppose you perform a backup to a hard disk and in the middle of the backup process True Image 2013 finds out that the disk to which you are backing up, does not have sufficient free space for completing the backup. The program displays a message warning you that the disk is full.


Confirmation
The disk is full.
You must free additional disk space to continue. You can either empty the Recycle Bin or delete old data files. Click Browse to specify another location, Retry to try again, or click Cancel.
Retry
Browse...
Cancel

To complete the backup, you may either try to free up some space on the disk and click **Retry** or select another storage device. To choose the latter option, click **Browse...** in the confirmation window. The **Browse for Destination** window appears.



The left pane shows the storage locations available on your computer. After you select a suitable location, assign a name for the file that will contain the remaining data being backed up. You can enter the name manually (for example, "tail_end.tib") or use the file name generator (a button to the right of the line). Then click **OK** and True Image 2013 will complete the backup.

If backup versions belonging to the same backup "chain" have been saved to different destinations, True Image 2013 may prompt you for the locations of previous backup versions during data recovery. This may occur when the selected backup version does not contain the files you want to recover (or contains only a part of them). This may also happen when you recover a backup that was split on-the-fly.

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3.11 Adding an existing backup to the list

If you have backups that are not shown in the backups list on the **Backup and recovery** tab (for example, backups created by a previous Acronis True Image Home version), you can add them to the list. Click **Browse for backup** on the **Backup and recovery** tab. This opens a window where you can browse for backups on your computer.

To add an existing backup to the backup list, select the backup and click the **Add to backup list** button.

3.12 Deleting backups and backup versions

You may want to delete backups and backup versions you no longer need. True Image 2013 stores information on the backups in a metadata information database.

Therefore, deleting unneeded backup files in Windows Explorer will not delete information about these backups from the database, and True Image 2013 will consider that they still exist.

This will result in errors when the program tries to perform operations on the backups that no longer exist. So you must only remove obsolete backups and backup versions by using the tools provided by True Image 2013.

To delete an entire backup:

Find the corresponding backup box on the **Backup and recovery** tab of True Image 2013. Click the gear icon to open the Operations menu and then click **Delete**.

When you delete an entire backup, all its versions will be deleted as well.

To delete a specific backup version:

1. On the **Backup and recovery** tab, find the corresponding backup box and click the **Recover** button or click the gear icon and then click **Recover files** (in case of a disk backup).
2. In Backup explorer, right-click on the time line the version you want to delete, and then click **Delete version**.

When you delete a backup version, please remember that this version may have dependent versions. In this case the dependent versions will be deleted as well, because data recovery from such versions becomes impossible.

- **If you delete a full backup version** - the program will also delete all subsequent incremental and differential versions till the next full version.
- **If you delete an incremental backup version or a differential backup version** - the program will also delete all subsequent incremental versions till the next full or differential version.

3.13 Backup options

In the **Disk Backup Options**, **File Backup Options**, **E-mail Backup Options, Nonstop Backup Options** and **Online Backup Options** windows you can configure options for a disk/partition, file, e-mail, nonstop and online backup processes respectively. To open the options window, click the appropriate link.

After you have installed the application, all options are set to the initial values. You can change them for your current backup operation only or for all backups that will be created in future. Select the

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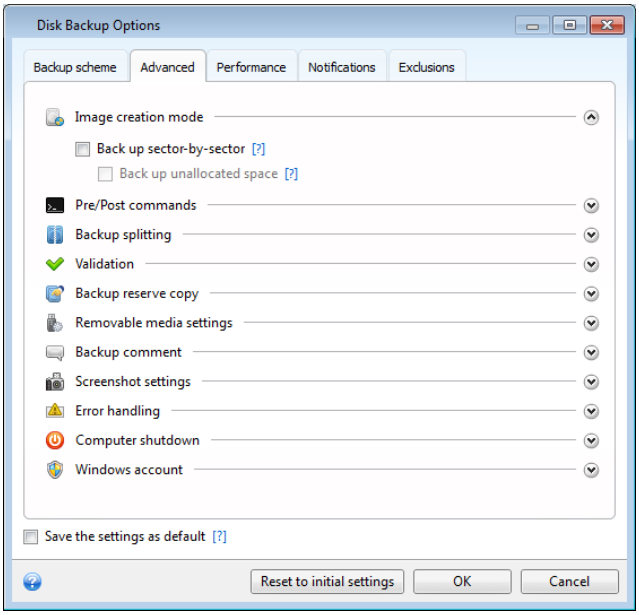
Save the settings as default check box to apply the modified settings to all further backup operations by default.



Note that options of each backup type are fully independent, and you should configure them separately.

If you want to reset all the modified options to the values that were set after the product installation initially, click the **Reset to initial settings** button.

In this section

Backup schemes....60
Single version scheme....60
Version chain scheme....61
Custom schemes....61
Image creation mode....65
Backup protection....65
Pre/Post commands for backup....66
Backup splitting....67
Backup validation option....67
Backup reserve copy....68
Removable media settings....68
Backup comment....69
Screenshot settings....69
Error handling....70
Computer shutdown....70
File-level security settings for backup....71
Windows account....71
Performance of backup operation....71
Notifications for backup operation....72
Excluding items from backup....73

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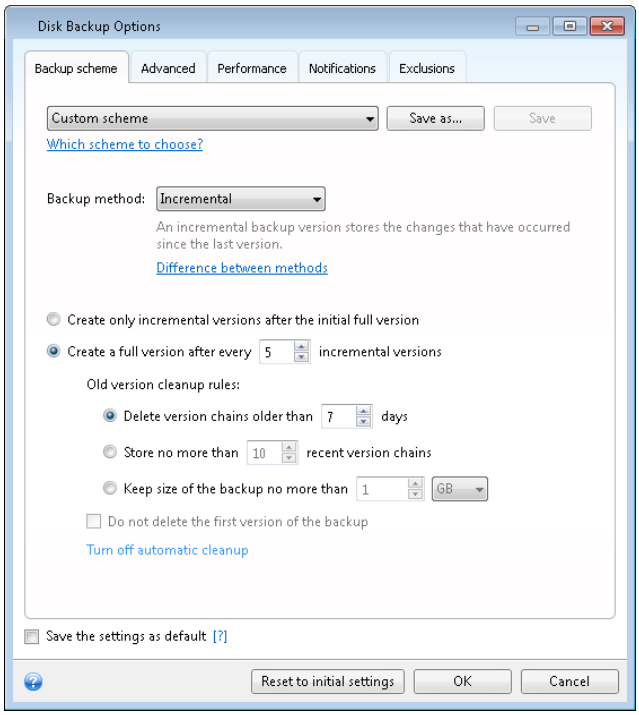
3.13.1 Backup schemes

Backup schemes along with the scheduler help you to set up your backup strategy. The schemes allow you to optimize backup storage space usage, improve data storage reliability, and automatically delete the obsolete backup versions.

Backup scheme defines the following parameters:

- Backup methods that will be used to create backup versions (full, differential or incremental)
- Sequence of the backup versions created using different methods
- Version cleanup rules



True Image 2013 allows you to choose the following backup schemes:

- **Single version** (p. 60) - select this scheme if you want to use the smallest backup storage.
- **Version chain** (p. 61) - this may be the optimal scheme in many cases.
- **Incremental** - select this scheme if you want to create only incremental backups after an initial full backup (this is the default scheme).
- **Differential** - select this scheme if you want to create only differential backups after an initial full backup.
- **Custom** (p. 61) - select this item if you want to set up a backup scheme manually.

3.13.2 Single version scheme

This backup scheme is the same for both disk backup and file backup types (except scheduler settings).

The program creates a full backup version and overwrites it every time according to the specified schedule or when you run backup manually.

Backup scheduler setting for disk backup: monthly.

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Backup scheduler setting for file backup: daily.

Result: you have a single up-to-date full backup version.

Required storage space: minimal.

3.13.3 Version chain scheme

This backup scheme differs for disk backup and file backup types.

Disk backup version chain

At first the program creates the 1st full backup version. The version will be kept until you delete it manually. After that, according to the specified schedule (or when you run backup manually) the program creates: 1 full and 5 differential backup versions, then again 1 full and 5 differential backup versions and so on. The versions will be stored for 6 months. After the period the program analyzes if the oldest backup versions (except the 1st full version) may be deleted. It depends on the minimum number of versions (eight) and version chains consistency. The program deletes the oldest versions one by one after creating new versions with the same backup method (for example, the oldest differential version will be deleted after creation of the newest differential version). First of all the oldest differential versions will be deleted, then - the oldest full version.

Backup scheduler setting: monthly.

Result: you have monthly backup versions for the last 6 months plus the initial full backup version that may be kept for a longer period.

Required storage space: depends on the number of versions and their sizes.

File backup version chain

According to the specified schedule (or when you run backup manually) the program creates: 1 full and 6 incremental backup versions, then again 1 full and 6 incremental versions and so on. The versions will be stored for 1 month. After the period the program analyzes if the oldest backup versions may be deleted. It depends on the version chain consistency. To keep the consistency, the program deletes the oldest versions by chains "1 full + 6 incremental backup versions" after creating a new analogous version chain.

Backup scheduler setting: daily.

Result: you have backup versions for every day of the last month.

Required storage space: depends on the number of versions and their sizes.

3.13.4 Custom schemes

With True Image 2013 you also can create your own backup schemes. Schemes can be based on the pre-defined backup schemes. You can make changes in a selected pre-defined scheme to suit your needs and then save the changed scheme as a new one.

You cannot overwrite existing pre-defined backup schemes.

In addition, you can create custom schemes from scratch based on full, differential or incremental backup versions.

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So first of all select one of the backup methods in the appropriate box.

- Full (p. 39)

  Select this method if you want to create only full backup versions.
- Differential (p. 39)

  Select this method if you want to create backup chains containing only full and differential backup versions.

  You can configure the scheme by using one of the following options:
  - **Create only differential versions after the initial full version** - select this item to create only one backup version chain. Automatic cleanup is not available for this option.
  - **Create a full version after every [n] differential versions** - select this item to create several backup version chains. This is a more reliable but more space-consuming backup scheme.
- Incremental (p. 39)

  Select this method if you want to create backup chains containing only full and incremental backup versions.

  You can configure the scheme by using one of the following options:
  - **Create only incremental versions after the initial full version** - select this item to create only one backup version chain. Automatic cleanup is not available for this option.
  - **Create a full version after every [n] incremental versions** - select this item to create several backup version chains. This is a more reliable but more space-consuming backup scheme.

Automatic cleanup rules

To delete obsolete backup versions automatically, you can set one of the following cleanup rules:

- **Delete versions older than [defined period]** (available for full method only) - Select this option to limit the age of backup versions. All versions that are older than the specified period will be automatically deleted.
- **Delete version chains older than [defined period]** (available for incremental and differential methods only) - Select this option to limit the age of backup version chains. The oldest version chain will be deleted only if, after deletion, the age of the oldest version exceeds the specified period.
- **Store no more than [n] recent versions** (available for full method only) - Select this option to limit the maximum number of backup versions. When the number of versions exceeds the specified value, the oldest backup version will be automatically deleted.
- **Store no more than [n] recent version chains** (available for incremental and differential methods only) - Select this option to limit the maximum number of backup version chains. When the number of version chains exceeds the specified value, the oldest backup version chain will be automatically deleted.
- **Keep size of the backup no more than [defined size]** - Select this option to limit maximum size of the backup. After creating a new backup version, the program checks whether the total backup size exceeds the specified value. If it's true, the oldest backup version will be deleted.

The first backup version option

Often the first version of any backup is one of the most valuable versions. This is true because it stores the initial data state (for example, your system partition with recently installed Windows) or some other stable data state (for example, data after a successful virus check).

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Do not delete the first version of the backup - Select this check box to keep the initial data state. The program will create two initial full backup versions. The first version will be excluded from the automatic cleanup, and will be stored until you delete it manually.

If you select incremental or differential method, the first backup chain will start from the second full backup version. And only the third version of the backup will be incremental or differential one.

Note that when the check box is selected, the **Store no more than [n] recent versions** check box will change to **Store no more than 1+[n] recent versions**.

3.13.4.1 Managing custom backup schemes

If you change anything in an existing backup scheme, you can save the changed scheme as a new one. In this case you need to specify a new name for that backup scheme.

- You can overwrite existing custom schemes.
- You cannot overwrite existing pre-defined backup schemes.
- In a scheme name, you can use any symbols allowed by OS for naming files. The maximum length of a backup scheme name is 255 symbols.
- You can create not more than 16 custom backup schemes.

After creating a custom backup scheme, you can use it as any other existing backup scheme while configuring a backup.

You can also use a custom backup scheme without saving it. In this case, it will be available only for the backup where it was created and you will be unable to use it for other backups.

If you do not need a custom backup scheme anymore, you can delete it. To delete the scheme, select it in the backup schemes list, click **Delete**, and then click **Delete scheme** in the confirmation window.

The pre-defined backup schemes cannot be deleted.

3.13.4.2 Automatic version consolidation

Automatic consolidation of a backup is enabled by setting the overall limitations for the backup. These limitations include:

- a maximum number of backup versions
- a maximum storage period for the backup files
- a maximum backup size

Automatic backup version consolidation is available only for the incremental and differential methods of the custom backup version scheme.

By default there are no limits set and automatic consolidation is not performed. To enable automatic consolidation, you must select at least one of the limits and either leave its default value or change it according to your needs.

If limits are set, then after creating a backup version the program checks the backup for quota violations, such as exceeding a pre-set maximum number of gigabytes set aside for backup versions and, if any limitation is exceeded, consolidates the oldest backup versions. For example, if you've pre-set your backup to store 50GB of backup files and your backup versions reach 55GB, you have exceeded a quota and the system will respond automatically based on rules that you've already set. This operation creates a temporary file and thus requires disk space. Consider also that the quota

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must be violated so that the program can detect the violation. Therefore, to be able to consolidate the files, the program needs some space on the disk in excess of the backup quota. The extra amount of space can be estimated as the size of the largest backup version in the backup.

In case of setting a limit on the number of backup versions, the actual number of versions can exceed the maximum number of versions by one. This enables the program to detect quota violation and start consolidation. Similarly, if you pre-set a backup version storage period, for example, 30 days, the program will start consolidation when the oldest backup version is stored for 31 days.

3.13.4.3 Examples of custom schemes

1. File backup "Daily incremental version + weekly full version"

Case: You have files and/or folders you work with every day. You need to save your daily work results and want to be able to recover data state to any date for the last three weeks. Let's see how you can do this using a custom backup scheme.

1. On the **Backup and recovery** tab, click **Other backups** and then select **File backup**.
2. In the **File Backup** window select files and/or folders you want to back up, and specify the backup destination. For more information see Backing up files and folders.
3. Click **Turn on** for the **Schedule** item. In the **Scheduler** window click **Daily**, and specify a start time for the backup operation. For example, if you finish your everyday work at 8 PM, specify this time or a little later (8.05 PM) as the start time.
4. Click **Incremental** next to the **Backup scheme** item (**Incremental** is the default backup scheme).
5. In the **File Backup Options** window, make sure that the **Backup scheme** tab is selected.
6. Choose **Custom scheme** instead of **Incremental scheme**.
7. In the **Backup method** box, select **Incremental** from the drop down list.
8. Click **Create a full version after every [n] incremental versions**, and type or select "6".

   In that case, the program will first create the initial full backup version (no matter how you set up a backup process, the first backup version will always be the full one), and then 6 incremental versions day by day. Then, it will create 1 full version and 6 incremental versions again and so on. So every new full version will be created in exactly a week's time.
9. To limit the storage time for the versions, click **Turn on automatic cleanup**.
10. Click **Delete version chains older than [n] days**, type or select "21", and click **OK**.
11. In the **File Backup** window, check that all settings are correct and click **Back up now**. If you want your first backup to run only at the time you specified in the Scheduler, click the down arrow to the right of the **Back up now** button and select **Later** in the drop down list.

2. Disk backup "Full version every 2 months + differential version twice a month"

Case: You need to back up your system partition twice a month and create a new full backup version every two months. In addition, you want to use no more than 100 GB of disk space to store the backup versions. Let's see how you can do it using a custom backup scheme.

1. On the **Backup and recovery** tab, click **Disk and partition backup**.
2. In the **Disk Backup** window, select your system partition (usually C:), and specify the backup destination. For more information see Backing up partitions and disks.
3. Click **Turn on** for the **Schedule** item. In the **Scheduler** window click **Monthly**, and specify, for example, the 1st and 15th days of the month. This will result in a backup version in about every 2 weeks. Then specify a start time for the backup operation.

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4. Click **Incremental** next to the **Backup scheme** item (**Incremental** is the default backup scheme).
5. In the **Disk Backup Options** window, make sure that the **Backup scheme** tab is selected.
6. Choose **Custom scheme** instead of **Incremental scheme**.
7. In the **Backup method** box, select **Differential** from the drop down list.
8. Click **Create a full version after every [n] differential versions**, and type or select "3".

   In that case the program will first create the initial full backup version (no matter how you set up a backup process, the first backup version will always be the full one), and then 3 differential versions, each one in about two weeks. Then again a full version and 3 differential versions and so on. So every new full version will be created in two months.
9. To limit storage space for the versions, click **Turn on automatic cleanup**.
10. Click **Keep size of the backup no more than [defined size]**, type or select "100" "GB", and click **OK**.

    When the total backup size exceeds 100 GB, True Image 2013 will clean up the existing backup versions to make the remaining versions satisfy the size limit. The program will delete the oldest backup chain consisting of a full backup version and 3 differential backup versions.
11. In the **Disk Backup** window, check that all settings are correct and click **Back up now**. If you want your first backup to be run only at the time you specified in the Scheduler, click the down arrow to the right of the **Back up now** button and select **Later** in the drop down list.

3.13.5 Image creation mode

You can use these parameters to create an exact copy of your whole partitions or hard disks, and not only the sectors that contain data. Note that the **Back up unallocated space** check box is available only when the **Back up sector-by-sector** check box is selected.

- To make a sector-by-sector backup, check the **Back up sector-by-sector** parameter. By default the program copies only the hard disk sectors that contain data. However, sometimes it might be useful to make a full sector-by-sector backup. For example, you have deleted some files by mistake and want to make a disk image before trying to undelete them, because sometimes undeleting may create problems in the file system. Please note that this mode increases processing time and usually results in a larger image file because it copies used and unused hard disk sectors.
- The **Back up unallocated space** option becomes available if you have selected the previous parameter, **Back up sector-by-sector**. By default, while performing sector-by-sector backup, unallocated space is not included into the backup file. Enabling this option will include all unallocated disk space into the backup.

3.13.6 Backup protection

A backup file can be password-protected. By default, there is no password protection for backups.

To protect the backup:

- Enter the password for the backup into the **Password** field. A password should consist of at least eight symbols and contain both letters (in upper and lower cases preferably) and numbers to make it more difficult to guess.
- Retype the previously entered password into the **Confirm** field.

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- To increase the security of your confidential data, you can encrypt the backup with strong industry-standard AES (Advanced Encryption Standard) cryptographic algorithm. AES is available with three key lengths – 128, 192 and 256 bits to balance performance and protection as desired.

  The 128-bit encryption key is sufficient for most applications. The longer the key, the more secure your data. However, the 192 and 256-bit long keys significantly slow down the backup process.

  If you want to use AES encryption, choose one of the following keys:

  - **AES 128** - to use 128-bit encryption key
  - **AES 192** - to use 192-bit encryption key
  - **AES 256** - to use 256-bit encryption key

  If you do not want to encrypt the backup and only want to protect a backup with a password, select **None**.

Having specified the backup protection settings, click **OK**.

Note that you cannot change the password of a password-protected backup after the backup was created.

If you try to recover data from a password-protected backup, the program will ask for the password in a special window, allowing access only to authorized users.

3.13.7 Pre/Post commands for backup

You can specify commands (or even batch files) that will be automatically executed before and after the backup procedure.

For example, you may want to start/stop certain Windows processes, or check your data before starting backup.

To specify commands (batch files):

- Select a command to be executed before the backup process starts in the **Pre-command** field. To create a new command or select a new batch file, click the **Edit** button.
- Select a command to be executed after the backup process ends in the **Post-command** field. To create a new command or select a new batch file, click the **Edit** button.

Please do not try to execute interactive commands, i.e. commands that require user input (for example, "pause"). These are not supported.

3.13.7.1 Edit user command for backup

You can specify user commands to be executed before or after the backup procedure:

- In the **Command** field, type-in a command or select it from the list. Click **...** to select a batch file.
- In the **Working directory** field, type-in a path for command execution or select it from the list of previously entered paths.
- In the **Arguments** field enter or select command execution arguments from the list.

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Disabling the **Do not perform operations until the command's execution is complete** parameter (enabled for Pre commands by default), will permit the backup process to run concurrently with your command execution.

The **Abort the operation if the user command fails** (enabled by default) parameter will abort the operation if any errors occur in command execution.

You can test a command you entered by clicking the **Test command** button.

3.13.8 Backup splitting

True Image 2013 cannot split already existing backups. Backups can be split only when being created.

Large backups can be split into several files that together make up the original backup. A backup can also be split for burning to removable media.

The default setting - **Automatic**. With this setting, True Image 2013 will act as follows.

When backing up to a hard disk:

- If the selected disk has enough space and its file system allows the estimated file size, the program will create a single backup file.
- If the storage disk has enough space, but its file system does not allow the estimated file size, the program will automatically split the image into several files.
- If you do not have enough space to store the image on your hard disk, the program will warn you and wait for your decision as to how you plan to fix the problem. You can try to free some additional space and continue or select another disk.

When backing up to a CD-R/RW, DVD-R/RW, DVD+R/RW, BD-R/RE:

- True Image 2013 will ask you to insert a new disk when the previous one is full.

Alternatively, you may select the desired file size from the drop-down list. The backup will then be split into multiple files of the specified size. That comes in handy when backing up to a hard disk with the view to burning the backup to CD-R/RW, DVD-R/RW, DVD+R/RW or BD-R/RE later on.

Creating images directly on CD-R/RW, DVD-R/RW, DVD+R/RW, BD-R/RE might take considerably more time than it would on a hard disk.

3.13.9 Backup validation option

You can specify the additional validation setting: **Validate backup when it is created**.

When this option is enabled, the program will check the integrity of the recently created or supplemented backup version immediately after backup. When setting up a backup of critical data or a disk/partition backup, we strongly recommend that you enable this option in order to ensure that the backup can be used to recover the lost data.

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Regular validation

You can also schedule validation of your backups to ensure that they remain "healthy". By default regular validation is turned on with the following settings:

- Frequency: once a month
- Day: the date when the backup was started
- Time: the moment of backup start plus 15 minutes
- Advanced settings: the **Run the validation only when the computer is idle** check box is selected

Example: You start a backup operation on July 15, at 12.00. The backup version is created at 12.05. Its validation will run at 12.15 if your computer is in the "screen saver" state at the moment. If not, then the validation will not run. In a month, August 15, at 12.15, the validation will start again. As before, your computer must be in the "screen saver" state. The same will occur on September 15, and so on.

You can change the default settings and specify your own schedule. This may be useful if you set a custom backup scheme with incremental backups. For example, you may want to schedule validation of all backup versions (the initial full backup version and subsequent incremental backup versions) once a week.

For more information see Scheduling (p. 157).

3.13.10 Backup reserve copy

Backup reserve copy is an independent full backup version created immediately after a normal backup and containing the same data. You can save reserve copies of your backups on the file system, a network drive, or a USB flash drive.

To make a reserve copy:

1. Select the **Create a reserve copy of my backups** check box.
2. Specify a location for the backup copies.

All options of reserve copies (such as backup compression, backup splitting, etc.) are inherited from the source backup.

A reserve copy always contains all the files selected for backup, that is, when creating a reserve copy the program always makes a full backup of the source data. You cannot make a reserve copy in the form of an incremental or differential backup.

Also remember that you will pay for the enhanced convenience and increased security of your data by the time required for performing the backup because normal backup and reserve copying are performed one at a time and not simultaneously.

Please, be aware that CD/DVDs are not supported as locations for reserve copies.

3.13.11 Removable media settings

When backing up to removable media, you can make this media bootable by writing additional components to it. Thus, you will not need a separate bootable disk.

The following settings are available:

- **Place True Image on media**

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True Image - includes support of USB, PC Card (formerly PCMCIA) and SCSI interfaces along with the storage devices connected via them, and therefore is strongly recommended.

- **Place Acronis System Report on media**

  Acronis System Report - the component allows you to generate system report that is used for collecting information about your system in case of any program problem. Report generation will be available before you start True Image 2013 from the bootable media. The generated system report can be saved to a USB flash drive.

- **Place Acronis One-Click Restore on media**

  Acronis One-Click Restore is a minimal addition to your bootable media, allowing one-click data recovery from an image backup stored on this media. This means that when booting from the media and after clicking **Recover**, all data will be silently recovered to its original place. No options or selections such as resizing partitions will be possible.

Acronis One-Click Restore can be added to the media only when creating a full backup of an entire hard disk. It cannot be added when creating an incremental or differential backup, as well as backup of a partition. In such case the Place Acronis One-Click Restore on media check box will not be present on the General tab of the current backup options, even if the box is selected in the default Removable media settings.

- **Ask for first media while creating backups on removable media**

  You can choose whether to display the Insert First Media prompt when backing up to removable media. With the default setting, backing up to removable media may not be possible if the user is away, because the program will wait for someone to press OK in the prompt box. Therefore, you should disable the prompt when scheduling a backup to removable media. Then, if the removable media is available (for example, CD-R/RW inserted) the backup can run unattended.

If you have other Acronis products installed on your computer, the bootable versions of these programs' components will be offered as well.

True Image 2013 does not support creating bootable media if a flash drive is formatted in NTFS.

3.13.12 Backup comment

This option allows you to add comments to the backup. Backup comments may help you to find the necessary backup later.

If a backup does not have comments, type your comment in the comments area. When a comment already exists, you can edit it after clicking **Edit**.

Note that by default the comment will be assigned to all versions of the backup. You can edit the comment of a specific backup version in Backup Explorer.

3.13.13 Screenshot settings

Along with backup comments, screenshots help you to recognize a previous data state you need to recover. True Image 2013 allows you to take screenshots at the moment of starting a disk or partition backup. To enable the option, select the **Take screenshot upon a disk backup start** check box. The screenshots will be shown in Backup Explorer on the **Disks and partitions** tab. Every screenshot corresponds to its own disk backup version. Thus, switching between the backup versions on the time line, you will see different screenshots and will be able to find the required backup version faster.

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3.13.14 Error handling

When the program encountered an error while performing backup, it stops the backup process and displays a message, waiting for a response on how to handle the error. If you set an error handling policy, the program will not stop the backup process and warn you about an error with a message, but will simply handle the error according to the set rules and continue working.

You can set the following error handling policy:

- **Do not show messages and dialogs while processing (silent mode)** (the preset is disabled) - You can enable this setting to ignore errors during backup operations. This feature was mainly designed for unattended backups when you cannot control the backup process. In this mode no notifications will be displayed to you if errors occur during backup. Instead you can view the detailed log of all operations after the backup process finishes.
- **Ignore bad sectors** (the preset is disabled) - This option is present only for disk and partition backups. It lets you run a backup even if there are bad sectors on the hard disk. Although most disks do not have bad sectors, the possibility that they might occur increases during the course of the hard disk's lifetime. If your hard drive has started making strange noises (for example, it starts making quite loud clicking or grinding noises during operation), such noises may mean that the hard drive is failing. When the hard drive completely fails, you can lose important data, so it is high time to back up the drive as soon as possible. There may be a problem though – the failing hard drive might already have bad sectors. If the **Ignore bad sectors** check box is left unselected, a backup is aborted in case of read and/or write errors that could occur on the bad sectors. Selecting this box lets you run a backup even if there are bad sectors on the hard disk ensuring that you save as much information from the hard drive as possible.
- **When not enough space in ASZ, delete the oldest backup** (the preset is enabled) - When this setting is disabled and there is not enough space in the Acronis Secure Zone for the backup file being created, the program will display a dialog warning you that the zone is full and will require your action. The backup is suspended until you take a desired action and this makes unattended backups impossible. The dialog opens even when the **Do not show messages and dialogs while processing (silent mode)** setting is enabled. So it is advisable to select the **When not enough space in ASZ, delete the oldest backup** check box when planning unattended scheduled backups to the Acronis Secure Zone.
- **Repeat attempt if a backup fails** - This option allows you to automatically repeat a backup attempt if the backup fails for some reason. You can configure this option by specifying two settings - number of attempts and time interval between attempts. According to these settings, True Image 2013 will try to back up your data until the backup is successfully created. But if the error interrupting the backup persists, then the backup will not be created.

3.13.15 Computer shutdown

If you know that the backup process you are configuring may take a long time, you may select the **Shut down the computer after the backup is complete** check box. In this case, you will not have to wait until the operation completion. The program will perform the backup and turn off your computer automatically.

This option is also useful when you schedule your backups. For example, you may want to perform backups every weekday in the evening to save all your work. Schedule the backup and select the check box. After that you may leave your computer when you finish your work knowing that the critical data will be backed up and the computer will be turned off.

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3.13.16 File-level security settings for backup

You can specify security settings for backed up files (these settings relate only to file/folder backups):

- **Preserve file security settings in backups** - selecting this option will preserve all the security properties (permissions assigned to groups or users) of the backup files for further recovery.

  By default, files and folders are saved in the backup with their original Windows security settings (i.e. permissions for read, write, execute and so on for each user or user group, set in file **Properties** -> **Security**). If you recover a secured file/folder on a computer without the user specified in the permissions, you may not be able to read or modify this file.

  To eliminate this kind of problem, you can disable preserving file security settings in backups. Then the recovered files/folders will always inherit the permissions from the folder to which they are recovered (parent folder or disk, if recovered to the root).

  Or, you can disable file security settings during recovery, even if they are available in the backup. The result will be the same.
- **In backups, store encrypted files in a decrypted state** (the preset is disabled) - check the option if there are encrypted files in the backup and you want them to be accessed by any user after recovery. Otherwise, only the user who encrypted the files/folders will be able to read them. Decryption may also be useful if you are going to recover encrypted files on another computer.

  If you do not use the encryption feature available in Windows XP and later operating systems, simply ignore this option. (Files/folders encryption is set in **Properties** -> **General** -> **Advanced Attributes** -> **Encrypt contents to secure data**).

These options relate only to file/folder backups. In addition, they are unavailable for zip backups.

3.13.17 Windows account

When you create a backup, you can specify a Windows account under which this backup should be performed. This may be useful if your computer is used not only by you, but also by your relatives. In such a case each user often has personal documents, e-mail accounts, settings, and other personal data. By default True Image 2013 backs up data of the current user. We recommend that you change this setting if the Windows account under which you are currently working is not yours. The program will back up only the data related to the specified account. Data of all other accounts will not be backed up.

To change the current Windows account:

1. Select the **Run backup as different Windows account** check box.
2. Type the account name and password in the appropriate fields.

3.13.18 Performance of backup operation

On the **Performance** tab you can configure the following settings:

Compression level

You can choose the compression level for a backup:

- **None** - the data will be copied without any compression, which may significantly increase the backup file size.
- **Normal** - the recommended data compression level (set by default).
- **High** - higher backup file compression level, takes more time to create a backup.

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- **Maximum** - maximum backup compression, but takes a long time to create a backup.

The optimal data compression level depends on the type of files stored in the backup. For example, even maximum compression will not significantly reduce the backup size, if the backup contains essentially compressed files, like .jpg, .pdf or .mp3.

Operation priority

Changing the priority of a backup or recovery process can make it run faster or slower (depending on whether you raise or lower the priority), but it can also adversely affect the performance of other running programs. The priority of any process running in a system, determines the amount of CPU usage and system resources allocated to that process. Decreasing the operation priority will free more resources for other CPU tasks. Increasing backup or recovery priority may speed up the process by taking resources from the other currently running processes. The effect will depend on total CPU usage and other factors.

You can set up the operation priority:

- **Low** (enabled by default) - the backup or recovery process will run slower, but the performance of other programs will be increased.
- **Normal** - the backup or recovery process will have the equal priority with other processes.
- **High** - the backup or recovery process will run faster, but the performance of other programs will be reduced. Be aware that selecting this option may result in 100% CPU usage by True Image 2013.

Network connection speed limit

If you frequently back up data to network drives or FTP, think of limiting the network bandwidth used by True Image 2013.

You can specify the network backup data transfer speed by choosing the following:

- **Limit transfer rate to** - enter the bandwidth limit for transferring backup data in kilobytes per second.

3.13.19 Notifications for backup operation

Sometimes a backup or recovery procedure can last an hour or longer. True Image 2013 can notify you when it is finished via e-mail. The program can also duplicate messages issued during the operation or send you the full operation log after operation completion.

By default all notifications are disabled.

Free disk space threshold

You may want to be notified when the free space on the backup storage becomes less than the specified threshold value. If after starting a backup True Image 2013 finds out that the free space in the selected backup location is already less than the specified value, the program will not begin the actual backup process and will immediately inform you by displaying an appropriate message. The message offers you three choices - to ignore it and proceed with the backup, to browse for another location for the backup or to cancel the backup.

If the free space becomes less than the specified value while the backup is being run, the program will display the same message and you will have to make the same decisions.

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To set the free disk space threshold:

- Select the **Show notification message on insufficient free disk space** check box
- In the **Size** box, type or select a threshold value and select a unit of measure

True Image 2013 can monitor free space on the following storage devices:

- Local hard drives
- USB cards and drives
- Network shares (SMB/NFS)

*The message will not be displayed if the **Do not show messages and dialogs while processing (silent mode)** check box is selected in the **Error handling** settings.*

This option cannot be enabled for FTP servers and CD/DVD drives.

E-mail notification

You can specify an e-mail account that will be used for notifying you of the backup process.

To specify the e-mail settings:

- Select the **Send e-mail notifications about the operation state** check box.
- Enter the e-mail address in the **E-mail address** field. You can enter several e-mail addresses in a semicolon-delimited format.
- Enter the outgoing mail server (SMTP) in the **Outgoing mail server (SMTP)** field.
- Set the port of the outgoing mail server. By default the port is set to 25.
- Enter the user name in the **User name** field.
- Enter the password in the **Password** field.
- To check whether your settings are correct, click the **Send test message** button.

Additional notification settings:

- To send a notification concerning process completion, select the **Send notification upon operation's successful completion** check box.
- To send a notification concerning process failure, select the **Send notification upon operation failure** check box.
- To send a notification with operation messages, select the **Send notification when user interaction is required** check box.
- To send a notification with full log of operations, select the **Add full log to the notification** check box.

3.13.20 Excluding items from backup

If you want to exclude unnecessary files from a backup, specify the appropriate file types on the **Exclusions** tab of the backup options. You can specify exclusions for **Disk and partitions backup**, **File Backup** or **Online Backup**.

How to use the default exclusion settings

After you have installed the application, all the exclusion settings are set to the initial values. You can change them for your current backup operation only or for all backups that will be created in future. Select the **Save as default** check box to apply the modified settings to all further backup operations

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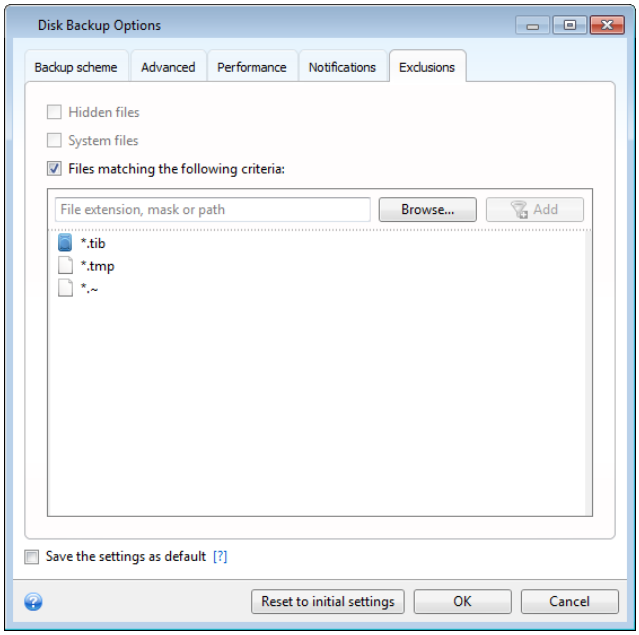
by default. If you want to reset all the modified settings to the values that they were originally set to when the product was installed, click the **Reset to initial settings** button.



What you can exclude and how

1. You can exclude hidden and system files from a backup by selecting the corresponding check boxes.

We do not recommend excluding hidden and system files from the backups of your system partition.

2. You can exclude files meeting the criteria you specify. To do this, select the **Files matching the following criteria** check box, enter the exclusion criterion, and then click **Add**.

By default, the program excludes from backups files with the following extensions: **.~**, **.tmp**, and **.tib**.

How to add an exclusion criterion:

- You can enter explicit file names for exclusion from the backup:
  - *file.ext* - all such files will be excluded from the backup.
  - *C:\file.ext* - the file.ext file on the C: disk will be excluded.
- You can use wildcard characters (* and ?):
  - **.ext* - all files with a .ext extension will be excluded.
  - *??name.ext* - all files with a .ext extension, having six letters in their names (starting with any two symbols (??) and ending with *name*), will be excluded.
- To exclude a folder, click **Browse**, select the folder you want to exclude on the directory tree, click **OK,** and then click **Add**.

To delete a criterion, for example, added by mistake, click the Delete icon to the right of the criterion.

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3.14 Validating backups

The validation procedure checks whether you will be able to recover data from a particular backup version, so when you select for validation on the time line…

- a full backup version, the program validates the full backup version only.
- a differential backup version, the program validates the initial full backup version and the selected differential backup version.
- an incremental backup version, the program validates the initial full backup, the selected incremental backup version, and the whole chain (if any) of backup versions to the selected incremental backup version. If the chain contains one or more differential backup versions, the program validates (in addition to the initial full backup version and the selected incremental backup version) only the most recent differential backup version in the chain and all subsequent incremental backup versions (if any) between the differential backup version and the selected incremental backup version.

This information can be helpful, for example, when you find out that a backup comprising a full backup version and a chain of incremental ones is corrupted. To troubleshoot the backup, do as follows. First of all validate the full backup version by selecting it on the time line, right-clicking and choosing **Validate** in the shortcut menu. If it is damaged, all the backup chain will be useless. When it is not damaged, proceed to validating incremental backup versions starting from the oldest, until you find the culprit. All incremental backup versions made after the corrupted one will be unusable, but you will be able to recover the data at least from the previous backup versions.

To validate an entire backup:

1. Select the backup to validate, click the gear icon to open the Operations menu and select **Validate**. If the selected backup is password-protected, True Image 2013 will ask for the password in a dialog box.
2. After you enter the correct password the program will start the validation procedure.
3. When the validation is complete, you will see the result in the line below the backup's box. You can cancel validation by clicking **Cancel**.

3.15 Consolidating backup versions

Using consolidation of backup versions, you can create a consistent copy of backup while deleting selected backup versions. This allows you to delete the backup versions you no longer need from any backup without harming that backup.

Consolidation creates a consistent copy of the backup that does not contain deleted backup versions. If you select a new location for the consolidated backup, the source backup stays as is unless you delete it. This requires more disk space but ensures security of the backup in case the consolidation fails because of power failure or a lack of disk space.

The current True Image 2013 version does not support consolidation of backups created in the zip format.

True Image 2013 cannot consolidate backup versions created when "editing" partition images mounted in the Read/Write mode.

To consolidate backup versions in a backup:

- Select a backup for consolidation on the **Backup and recovery** tab

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- Click the gear icon on the selected backup's box, point to **More** and then click **Consolidate versions**
- Follow the wizard's steps

You cannot choose another location when consolidating backup versions located in the Acronis Secure Zone.

3.15.1 Archive to consolidate protection

The archive you chose is password-protected in order to prevent it from unauthorized access. You need to specify the previously entered password to obtain access to the archive.

To specify the password:

- Type-in the password in the **Password** field. If you enter the wrong password, the consolidate archive procedure will not be able to continue.
- Click **OK** to continue.

3.15.2 Backup selection

The **Backup selection** window displays a list of backups belonging to the selected archive with the backup creation date and time (like in the Recovery wizard). The top backup is the full backup; the rest are incremental backups.

To select the backups you want to keep:

- Select the backups you want to keep. The other backups will not be included into the consolidated archive. Information on the selected backup (its name, date of creation, type and comments) is displayed on the right pane of the window.
- Click **Next** to continue.

3.15.3 Result location

Specify the place where you want to save the archive copy and its name. By default, the program suggests the same location and the source archive name. Your original archive will be overwritten.

To specify another location for the consolidated archive:

- Select the **New location** item and click the **Browse** button. Specify the location where you want the consolidated archive to be stored to from the drives tree.

  If required, you can create a new folder in the selected location (by clicking the **Create new folder** button), or delete the unnecessary folder (by clicking the **Delete** button).
- In the **File name** field enter a name for the consolidated archive, or click the **Generate name** button to generate the name automatically.
- If you don't need the original archive, you may delete it by selecting the **Delete the original archive** check box
- Click **Next** to continue.

You cannot choose another location when consolidating backups in an archive located in Acronis Secure Zone.

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3.15.4 Consolidation summary

The summary window contains a list of briefly described operations that True Image 2013 will perform after clicking **Proceed**. If some parameters need to be changed, choose the necessary step in the left part of the window and correct the parameter.

Click the **Proceed** button to start the listed operations.

Click the **Options** button to perform the optional steps.

Click the **Cancel** button to exit the wizard without performing any operations.

3.16 Cloning backup settings

When you already have a backup and you need to create a new backup of the same type (disk, file or e-mail backup), there is no need to configure the backup process from scratch. The program allows you to copy all settings from an existing backup. After that, you only have to slightly correct the copied settings for your new backup and click **Back up now**.

To create a new backup based on an existing backup:

1. On the **Backup and recovery** tab, find the corresponding backup box, click the gear icon to open the Operations menu, point to **More**, and then click **Clone settings**.

   A new backup box named **(1) [the initial backup name]** will be created. It will contain the same settings as the "parental" backup.
2. On the cloned backup box, click the gear icon to open the Operations menu, and then click **Edit settings**.
3. Change selection of items to back up. You may modify backup name, destination, and other settings if needed.
4. Click the **Save** button.
5. To create the first backup version, click **Back up now** on the backup box.

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4 Recovering data

The purpose of data backup is to recover backed up data when the original is lost due to hardware failure, fire, theft or accidental deletion of files.

We hope that you backed up your system and data using the backup features provided by True Image 2013. If so, nothing will have been lost.

The following sections describe how to recover disks, partitions, files and folders. In most cases, you will use Acronis Backup Explorer to recover files and folders. For more information, see Acronis Backup Explorer (p. 26).

In this section

Recovering your system after a crash 78
Recovering partitions and disks 82
Recovering partitions protected with Acronis Nonstop Backup 84
How to recover more than one partition at once 84
Recovering a disk backup to a different disk under rescue media 88
Recovering data from file-level backups 94
Recovering file versions 95
Recovering to different hardware 96
Acronis Universal Restore 100
How to use Acronis Startup Recovery Manager 101
About recovery of dynamic/GPT disks and volumes 102
Backup protection dialog box 103
Arranging boot order in BIOS 103
Recovery options 104
Restoring computer to factory settings 108

4.1 Recovering your system after a crash

When your computer fails to boot, it is advisable to at first try to find the cause using the suggestions given in Trying to determine the crash cause (p. 78). If the crash is caused by corruption of the operating system, use a backup to recover your system. Make the preparations described in Preparing for recovery (p. 79) and then proceed with recovering your system.

4.1.1 Trying to determine the crash cause

A system crash can be due to two basic factors. One reason is that your computer will not boot due to a hardware failure. The second reason is that the operating system is corrupted and Windows will not start up.

In the first scenario, it is better to let your service center handle the repairs. However, you may want to perform some routine tests. Check the cables, connectors, power of external devices, etc. Then, restart the computer. The POST (power-on self test) that starts immediately after you turn on your computer, checks your system hardware. If the POST has found a failure, you will need to send the PC for repairs.

If the POST does not reveal a hardware failure, enter BIOS and check whether it recognizes your system hard disk drive. To enter BIOS, press the required key combination (**Del**, **F1**, **Ctrl+Alt+Esc**,

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Ctrl+Esc, or some other, depending on your BIOS) during the POST sequence. Usually the message with the required key combination is displayed during the startup test. Pressing this combination takes you to the setup menu. Go to the hard disk autodetection utility which usually comes under "Standard CMOS Setup" or "Advanced CMOS setup". If the utility does not detect the system drive, it has failed and you need to replace the drive.

If the utility correctly detects your system hard disk drive, then the cause of the crash is probably a virus, malware or corruption of a system file required for booting.

If the system drive is healthy, try to recover the system using a backup of your system disk or system partition. Because Windows does not boot, you will have to use Acronis bootable rescue media.

You will also need to use a system disk backup when recovering the system after replacing the damaged hard disk drive.

4.1.2 Preparing for recovery

a) Scan the computer for viruses if you suspect that the crash occurred due to a virus or malware attack.

b) Boot from the rescue media and validate the backup you want to use for recovery. This is necessary because, when a backup is validated in the recovery environment, the program sometimes declares it corrupted though it has been successfully validated in Windows. This may be due to the fact that True Image 2013 uses different device drivers in Windows and in the recovery environment. If True Image 2013 considers the backup corrupted, it will not proceed with recovery.

4.1.3 Recovering your system

After you have performed the steps described in Preparing for recovery (p. 79), begin the system recovery procedure. Here we will explain how to recover a corrupted system to the same hard disk. System recovery to a replaced hard disk drive will be similar with some minor differences. You do not need to format the new disk, as this will be done in the process of recovery.

Attach the external drive if it contains the backup to be used for recovery and make sure that the drive is powered on. This must be done before booting from Acronis rescue media.

1. Arrange the boot order in BIOS so as to make your rescue media device (CD, DVD or USB stick) the first boot device. See Arranging boot order in BIOS (p. 103).
2. Boot from the rescue media and select **True Image**.

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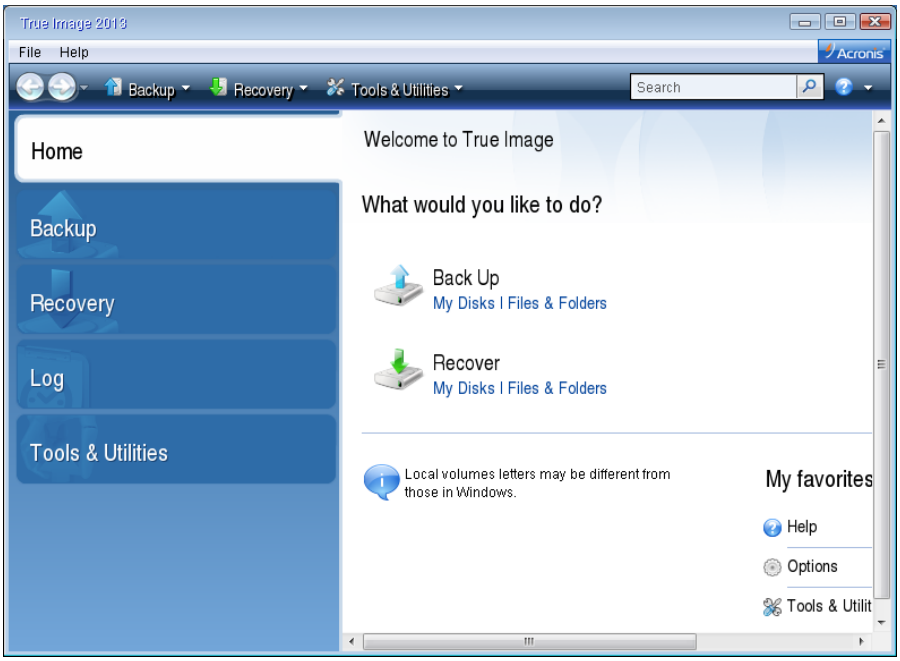
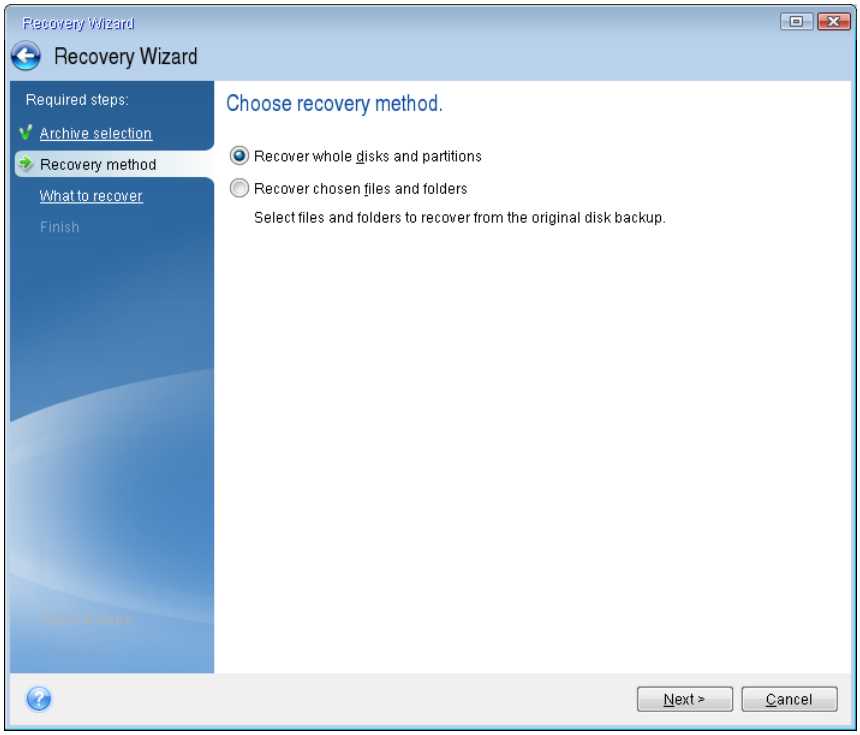
3. Select **My disks** below **Recover** on the Welcome screen.



4. Select the system disk or partition backup to be used for recovery.
   Right-click on the backup and choose **Recover** in the shortcut menu.
5. Select **Recover whole disks and partitions** at the Recovery method step.



6. Select the system partition (usually C) on the **What to recover** screen. If the system partition has a different letter, select the partition using the **Flags** column. It must have the **Pri**, **Act** flags.

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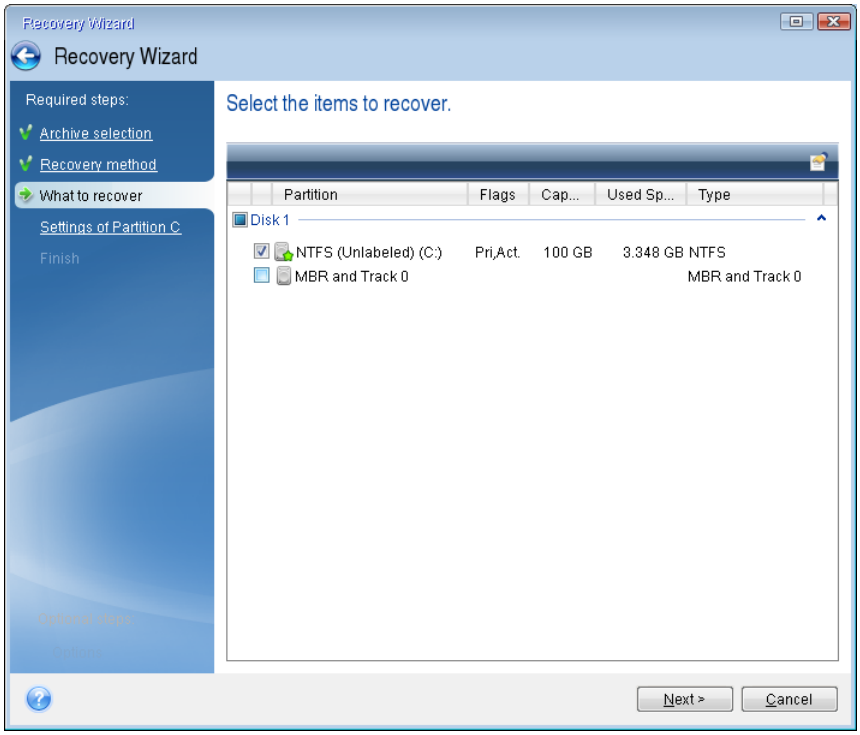
*In case of Windows 7 the System Reserved partition will have the **Pri, Act** flags . You will need to select for recovery both the System Reserved partition and the System partition.*



7. At the "Settings of partition C" (or the letter of the system partition, if it is different) step check the default settings and click **Next** if they are correct. Otherwise, change the settings as required before clicking **Next**. Changing the settings will be needed when recovering to the new hard disk of a different capacity.

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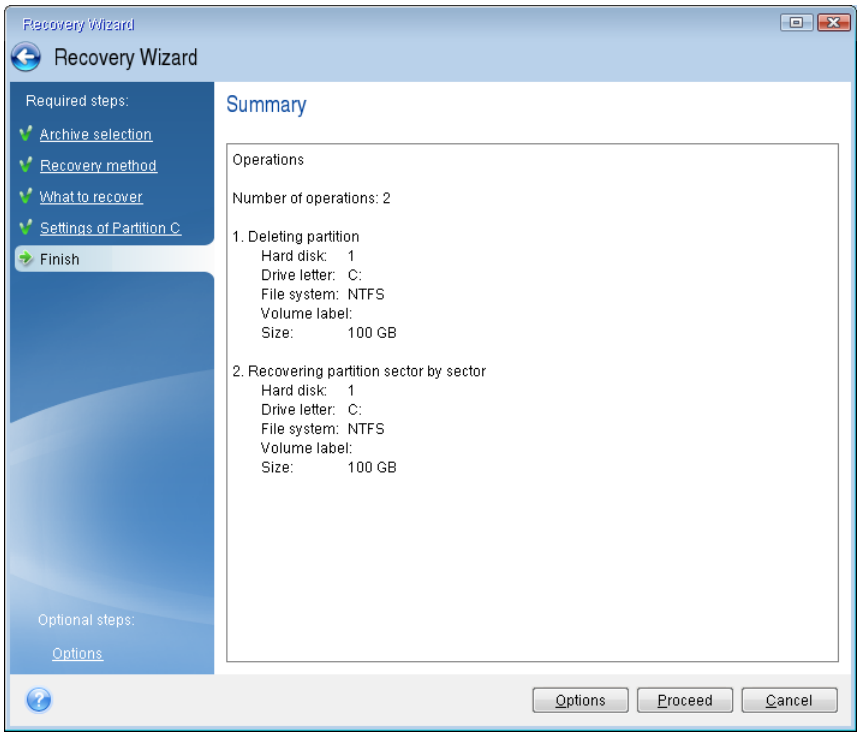
8. Carefully read the summary of operations at the **Finish** step. If you have not resized the partition, the sizes in the **Deleting partition** and **Recovering partition** items must match. Having checked the summary click **Proceed**.



9. When the operation finishes, exit the standalone version of True Image 2013, remove the rescue media and boot from the recovered system partition. After making sure that you have recovered Windows to the state you need, restore the original boot order.

4.2 Recovering partitions and disks

You can start recovering a partition or disk from an image backup both on the **Backup and recovery** tab and in Acronis Backup Explorer. To start recovery from the **Backup and recovery** tab, select the box of a backup containing the partition image you need to recover. Click the **Recover** button (or the Recover icon if the backup box is collapsed). This opens the Disk Recovery window.

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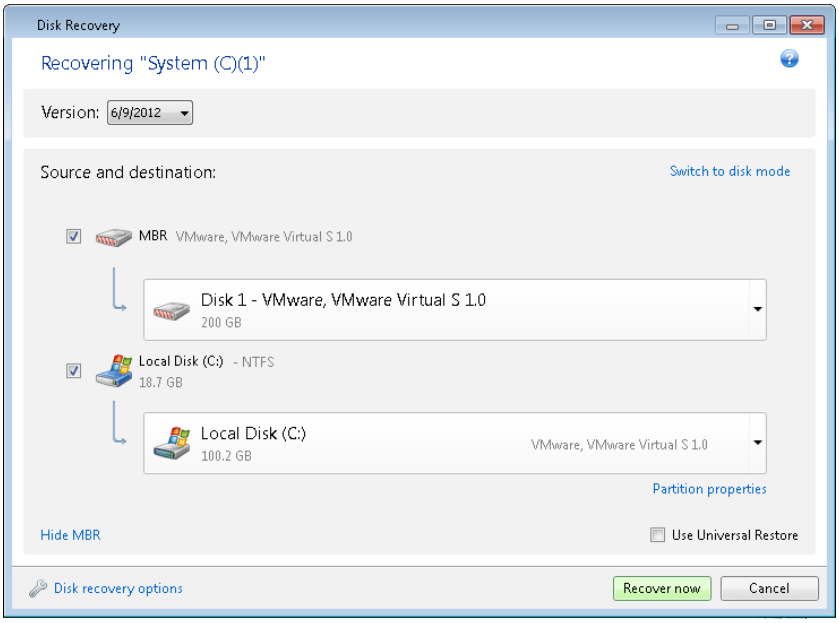
If you want to recover the partition to the state it was at an earlier date, click the gear icon to open the Operations menu and then click **Recover files**. This opens Acronis Backup Explorer and you can select the image backup version created on that date. Clicking **Recover** after selecting the required version opens the Disk Recovery window.



1. Select the corresponding check box of the partition to recover.

   *If you backed up an entire disk, you can choose to recover the entire disk at once by clicking **Switch to disk mode**. To be able to select partitions again, click **Switch to partition mode**.*

2. In the recovery destination field below the partition name, select the destination partition. Those partitions where the partition to be recovered can fit are marked by black lettering. Unsuitable partitions are marked by red lettering. Note that all data on the destination partition will be lost because it is replaced by the recovered data and file system.

   *To recover an image to the source partition without resizing, at least 5% of free space is required on the partition. Otherwise, the **Recover now** button will be unavailable.*

3. After you finish with your selections, click **Recover now** to start recovery.

Sometimes you need to recover the MBR (Master Boot Record). For instance, it may be necessary when Windows does not boot after recovery. To recover the MBR (either together with the partition or individually), click **Show MBR** and then select the MBR check box.

If you recover the entire disk, the **Recover disk signature** check box appears. Disk signature is a part of a hard disk MBR. It is used for uniquely identifying the disk media.

We recommend that you select the **Recover disk signature** check box due to the following reasons:

- True Image 2013 creates scheduled backups using the signature of the source hard disk. If you recover the same disk signature, you don't need to re-create or edit the backups created previously.
- Some installed applications use a disk signature for licensing and other purposes.

We recommend that you clear the **Recover disk signature** check box when:

- You use an image backup not for disaster recovery but for cloning your Windows hard drive to another one.

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In this case, True Image 2013 generates a new disk signature for the recovered hard drive, even if you recover to the same drive.

Disk recovery options - click to set up additional parameters for the disk recovery process.

Use Acronis Universal Restore - click to use Acronis Universal Restore technology during recovery.

Acronis Universal Restore (provided by separately purchased True Image 2013 Plus Pack) will help you create a bootable system clone on different hardware (for more information see Acronis Universal Restore (p. 100)).

Choose this option when recovering your system disk to a computer with a processor, motherboard or mass storage device that is different from the one in place when the system was originally backed up.

4.3 Recovering partitions protected with Acronis Nonstop Backup

You can recover partitions protected by Acronis Nonstop Backup as follows. Let's first recover a data partition in Windows.

1. Start True Image 2013.
2. Click **Explore and recover** in the Nonstop Backup box on the **Backup and recovery** tab.
3. Select the backup version you want to recover on the time line at the **Disks and partitions** tab.
4. Select the partition to recover and click **Recover**.
5. The further operations are similar to those performed when recovering data partitions or disks from a "classic" image backup. For further information see Recovering partitions and disks.

Depending on the circumstances, recovery of the system partition may be performed both in Windows and after booting from your rescue media (e.g. when Windows does not start). Recovery in Windows is similar to recovery of a data partition. However, you will need to reboot. Usually, it is safer to recover the system partition using the rescue media.

When using the rescue media, the recovery procedure is very similar to the procedure used for recovering the system partition from a "classic" disk or partition backup. The only difference is the Recovery point step that allows you to select the point in time from which you can recover the system partition. Recovery points correspond to backup versions shown on the time line of Backup explorer.

4.4 How to recover more than one partition at once

Here we describe recovery of two partitions. If an image of a hard disk has more than two partitions, the procedure is similar.

The following procedure is valid only for recovery to a basic disk. Recovery to a dynamic disk with partition resizing is impossible.

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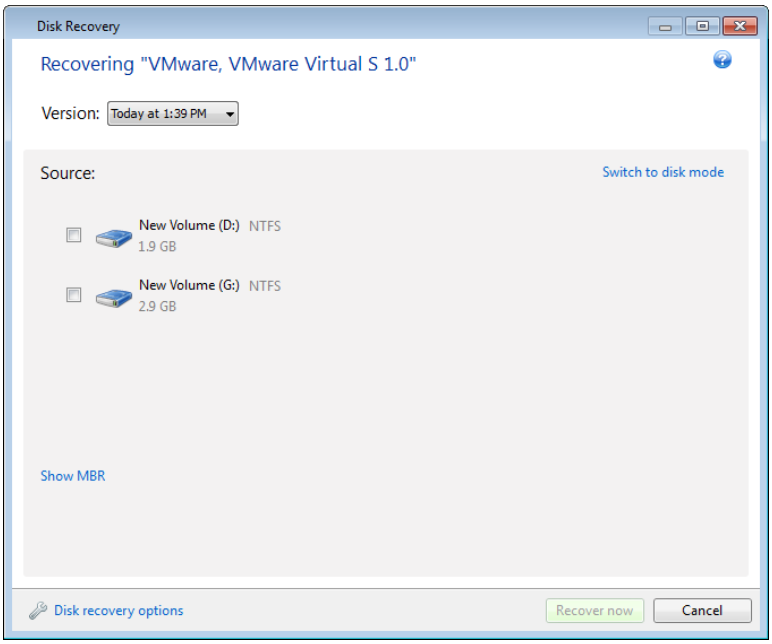
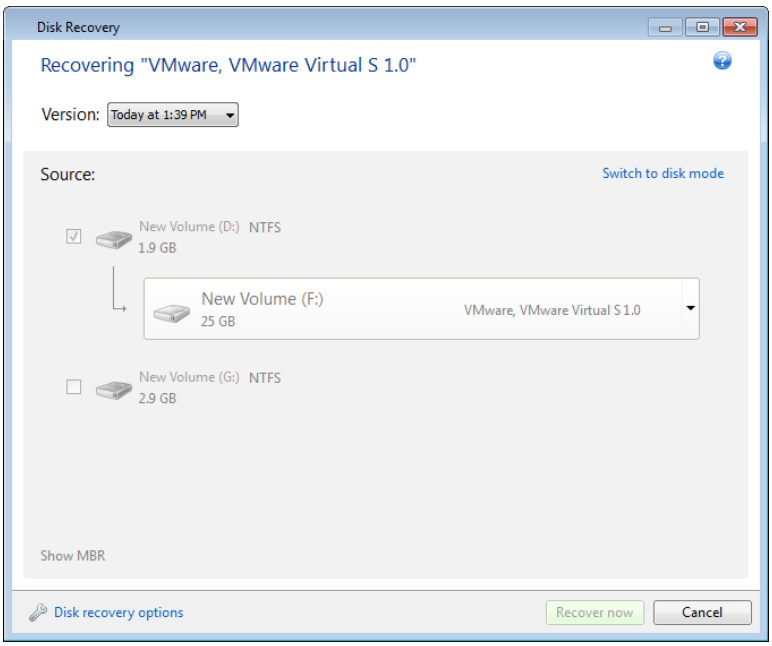
1. Click **Recover** on the backup box of a disk containing several partitions. The **Disk Recovery** window appears.



2. Click the down arrow next to **Version:** and then select the backup version you want to recover by its backup date and time.
3. Select a partition to recover. This opens the recovery destination field below the partition name (label).



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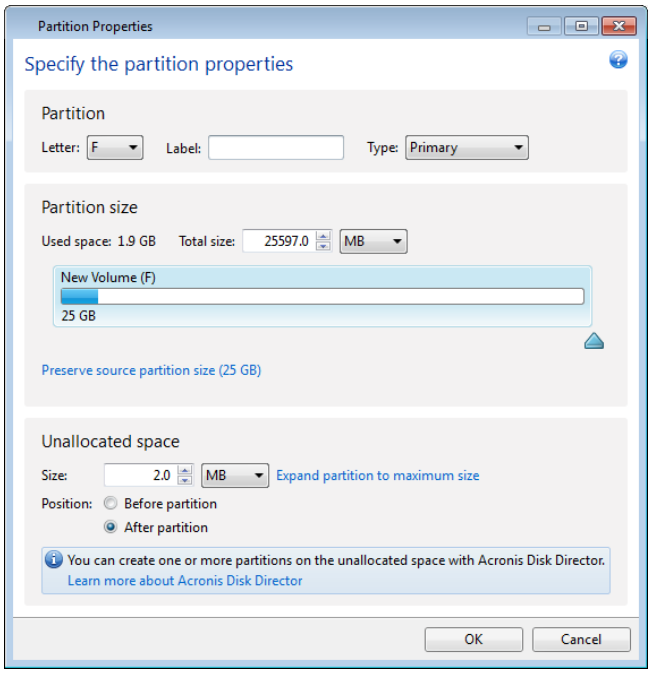
4. Click the down arrow to the right of the field and select the destination hard disk. The partition to be recovered is then placed on the selected hard disk. It occupies all the available disk space. To reduce the partition size so as to leave enough disk space for the remaining partition, click the **Partition properties** link below the recovery destination field. The **Partition Properties** window appears.



5. You can resize the partition by dragging its right border with a mouse on the horizontal bar on the screen.

*To assign the partition a specific size, enter the appropriate number into the **Total size** field.*

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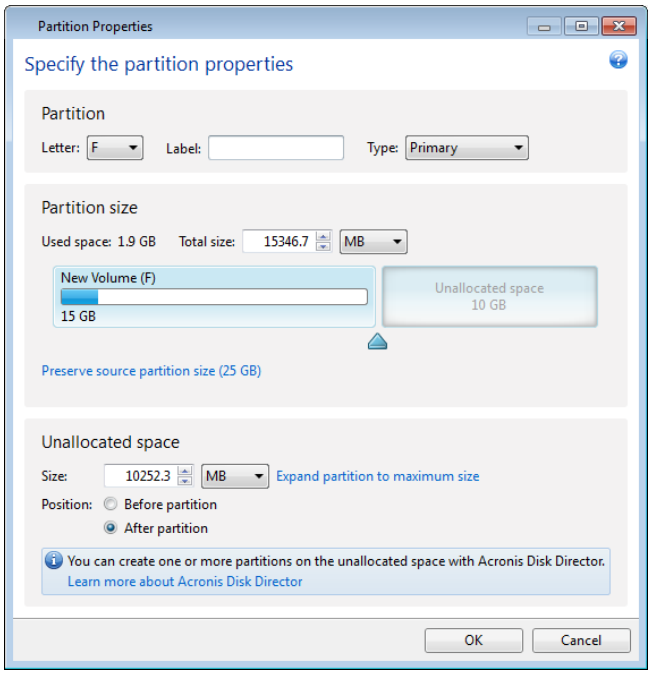
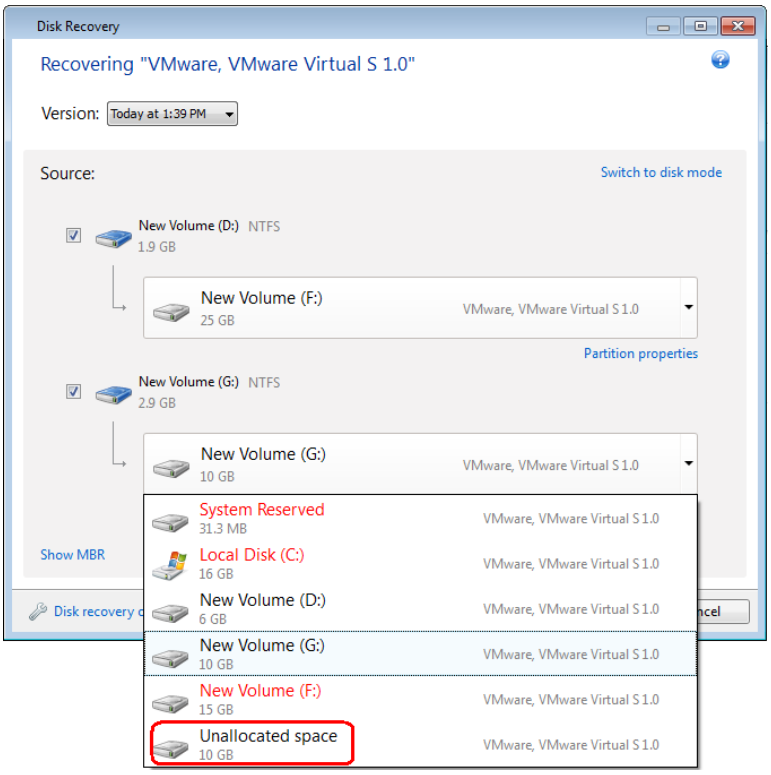
Remember that you need to leave as much unallocated (free) space after having resized the partition as will be needed for the remaining partition. Select a disk letter and partition type. When you finish the settings, click **OK** to confirm them and return to the main Disk Recovery window.



6. Select the next partition's check box.
7. Select the unallocated space on the destination hard disk. The program creates a partition occupying the entire unallocated space.



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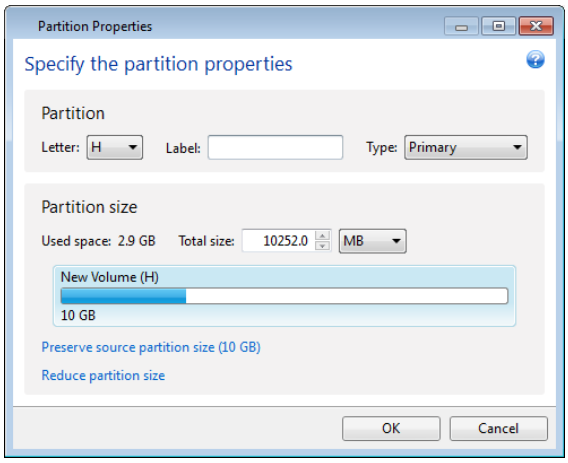
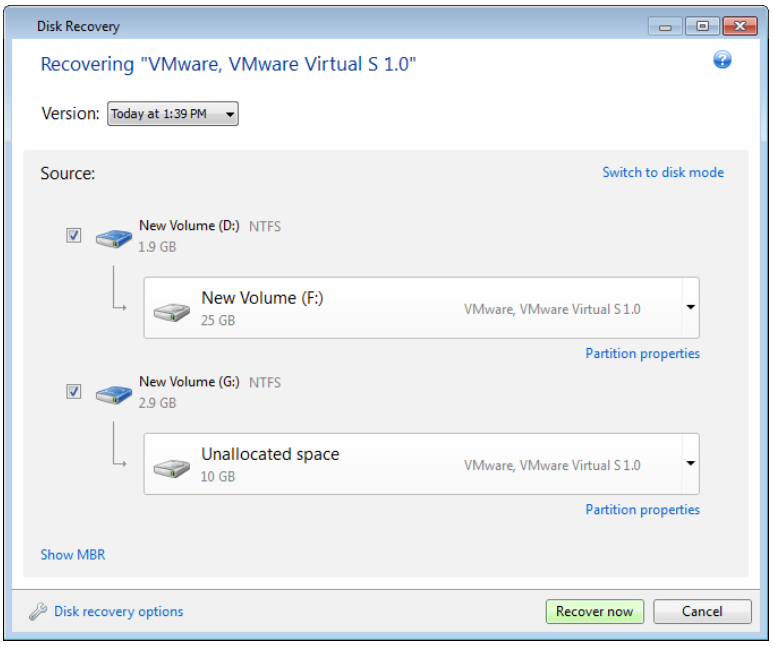
8. Click the **Partition properties** link and make the settings for the partition. Select a disk letter and partition type. When you finish the settings, click **OK** to confirm them and return to the main Disk Recovery window.



If the image contains more than two partitions, leave enough unallocated space for other partitions to be recovered and repeat steps 5-7 until you make the settings for all partitions.

9. Click **Recover now** to recover the partitions to the destination hard disk.



4.5 Recovering a disk backup to a different disk under rescue media

Recovery of a disk backup containing several partitions to a hard disk that has a different capacity is one of the most complicated operations. This is especially true when the original hard disk you have backed up has a hidden diagnostic or recovery partition.

Complete the preparations described in Preparing for recovery (p. 79).

If you have not already done so, assign unique names (labels) to the partitions of your computer's disks. This will allow for identification of the partitions by their names and not by the disk letters.

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Disk letters may differ when booting from the rescue media. The names will help you find the drive containing your backups, as well as the target (new) drive.

Information on partition sizes, drive capacities, their manufacturers, and model numbers can also help to correctly identify the drives.

It is highly recommended to install the new hard drive to the same position in the computer and to use the same cable and connector that was used for the original drive. This is not always possible, e.g. the old drive may be an IDE and the new drive may be a SATA. In any case, install the new drive to where it will be used.

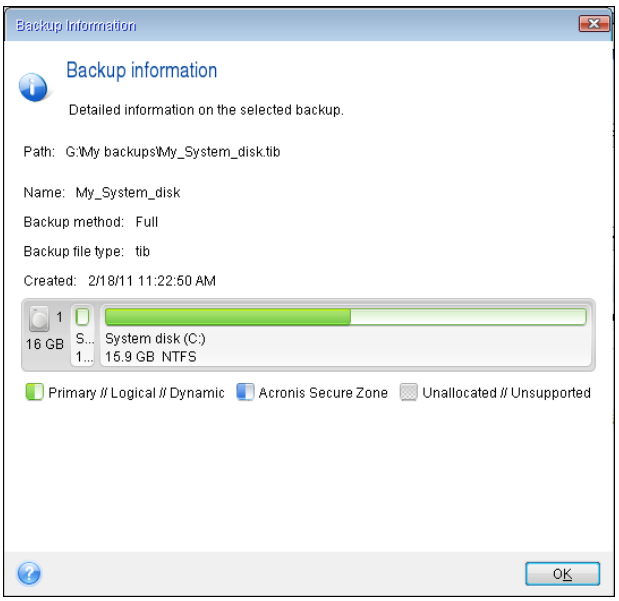
4.5.1 Recovering a disk with a hidden partition

A hidden partition may be created by the PC manufacturer for diagnostics or system recovery. Users of Windows 7 usually have the hidden System Reserved partition. Recovering a backup of a system disk with a hidden partition requires that you to take into account some additional factors. First of all, it is necessary for the new drive to keep the physical order of the partitions that existed on the old drive. In addition, you should place the hidden partition in the same location - usually at the start or the end of the disk space. To minimize the risk of possible problems, it is better to recover the hidden partition without resizing. Here we describe recovery of a system disk with Windows 7 and the hidden System Reserved partition.

Attach the external drive if it contains the backup to be used for recovery and make sure that the drive is powered on. This must be done before booting from Acronis rescue media.

1. Arrange the boot order in BIOS so as to make your rescue media device (CD, DVD or USB stick) the first boot device. See Arranging boot order in BIOS (p. 103).
2. Boot from the rescue media and select **True Image**.
3. Select **Recovery** → **Disk and Partition Recovery** in the main menu. Choose the image backup of your system disk that you want to use for recovery.

   Before continuing with the recovery, you need to know the sizes and physical order of all existing partitions. To see this information, click **Details** on the wizard's toolbar. True Image 2013 displays information about the backup. This includes a graphical view of all partitions the disk contains and their physical order on the disk.



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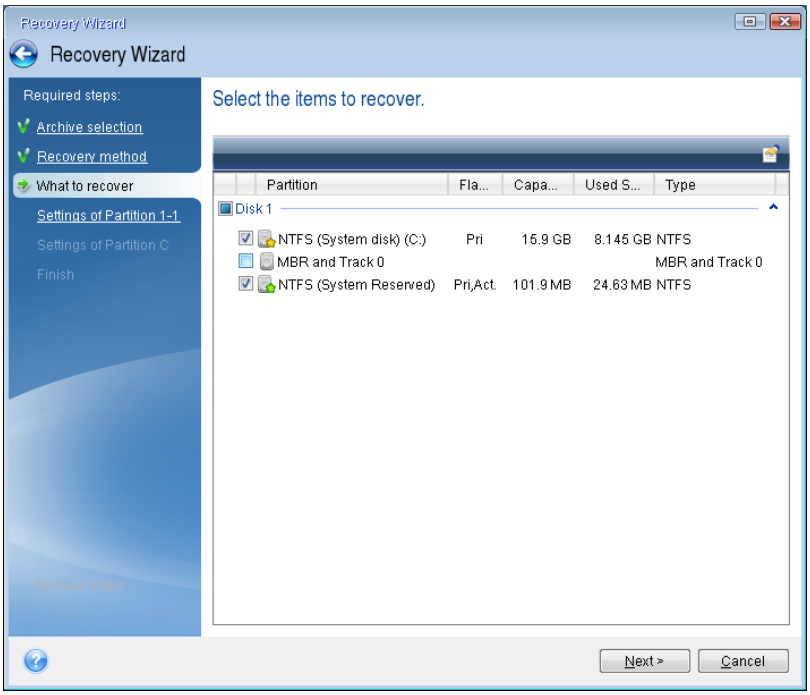
4. Select **Recover whole disks and partitions** at the Recovery method step.
5. At the **What to recover** step, select the boxes of the partitions to be recovered. Do not select the **MBR and Track 0** box, because this will result in selecting the entire disk for recovery. Recovering the entire disk does not allow you to resize partitions manually. You will be able to recover the MBR later. Select the partitions and click **Next**.



Selecting partitions leads to appearance of the relevant steps "Settings of partition ...". Note that these steps start with partitions which do not have an assigned disk letter (as usually is the case with hidden partitions). The partitions then take an ascending order of partition disk letters. This order cannot be changed. The order may differ from the physical order of the partitions on the hard disk.

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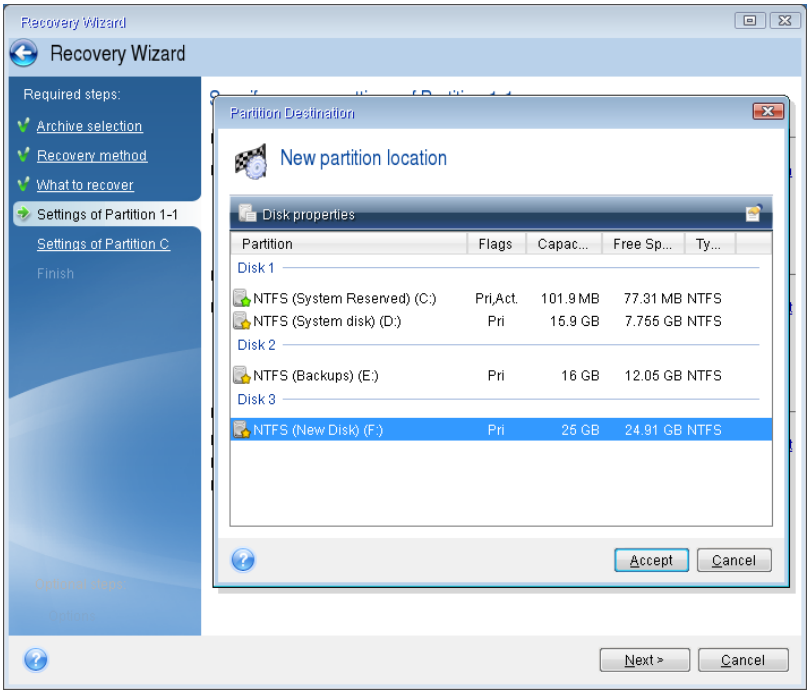
6. You can specify the following partition settings: location, type, and size. You first need to specify the settings of the hidden partition (System Reserved partition in our case) as it usually does not have a disk letter. Because you are recovering to the new disk, click **New location**. Select the destination disk by either its assigned name or capacity.



7. Clicking **Accept** returns you to the "Settings of partition 1-1" screen. Check the partition type and change it, if necessary. You should remember that the System Reserved partition must be primary and marked as active.

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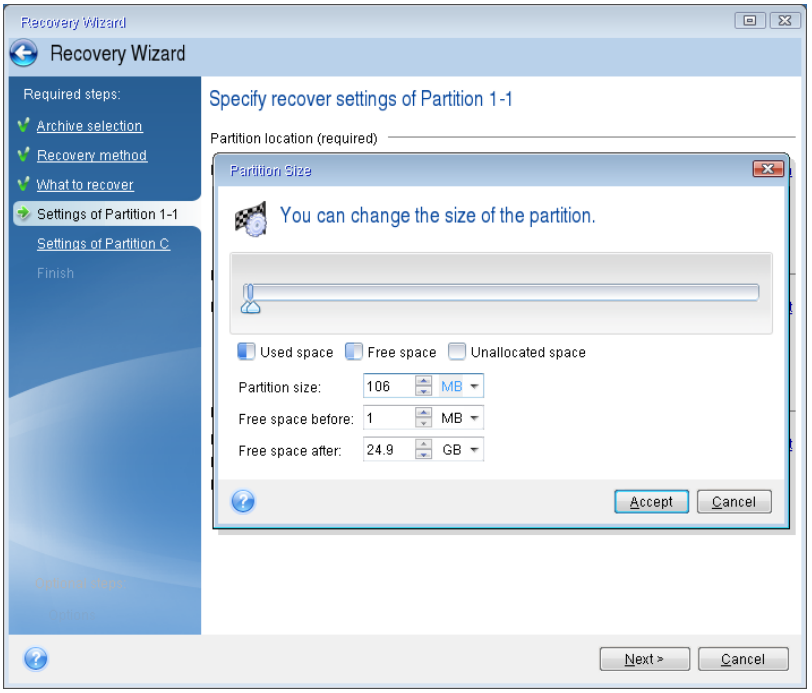
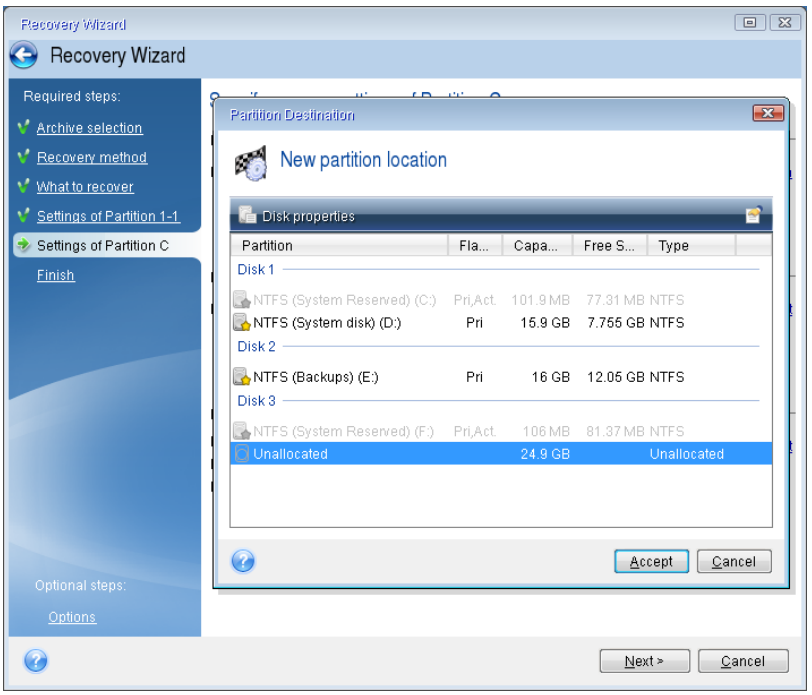
8. Proceed to specifying the partition size by clicking **Change default** in the Partition size area. By default the partition occupies the entire new disk. You need to keep the hidden partition size unchanged and place it in the same location on the disk (at the start or the end of disk space). To do this, resize and relocate the partition by dragging it or its borders with a mouse on the horizontal bar on the screen. Or you can enter corresponding values into the appropriate fields (Partition size, Free space before, Free space after). Click **Accept** when the partition has the required size and location and then click **Next**.



Specify the settings for the second partition which in this case is your system partition. Click **New location**, and then select unallocated space on the destination disk that will receive the partition.



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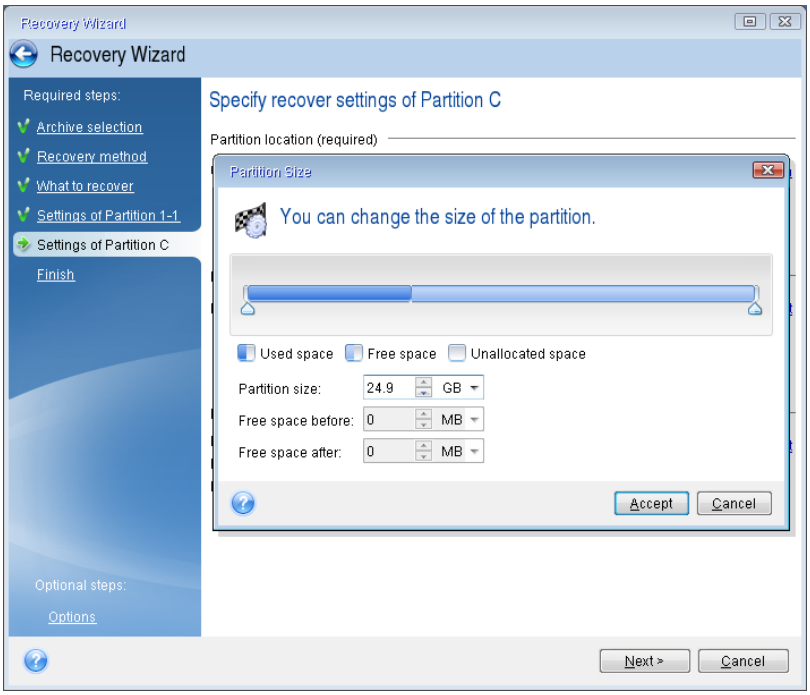
Click **Accept**, check the partition type (change, if necessary). The system partition must be primary.

Specify the partition size which by default equals the original size. Usually there is no free space after the partition, so allocate all the unallocated space on the new disk to the second partition. Click **Accept** and then click **Next**.



9. Carefully read the summary of operations to be performed and then click **Proceed**.

In the case being described (recovery of the System Reserved partition) steps 10-12 are optional. You need to perform them when recovering a hidden partition created by the PC manufacturer.

10. When the operation finishes, proceed to MBR recovery. You need to recover the MBR because the PC manufacturer could change the generic Windows MBR or a sector on track 0 to provide access to the hidden partition.
11. Select the same backup again. Right-click and select **Recover** in the shortcut menu. Choose **Recover whole disks and partitions** at the Recovery method step and then select the **MBR and Track 0** box.
12. At the next step, select the destination disk as the target for MBR recovery, click **Next** and then **Proceed**. After MBR recovery is complete, exit the standalone version of True Image 2013.

Windows should not "see" both the new and old drive during the first boot after recovery because this could result in problems booting Windows. If you upgrade the old drive to a larger capacity new one, disconnect the old drive before the first boot.

Switch off the computer, if you need to disconnect the old drive. Otherwise, just reboot the computer after removing the rescue media.

Boot the computer to Windows. It may report that new hardware (hard drive) is found and Windows needs to reboot. After making sure that the system operates normally, restore the original boot order.

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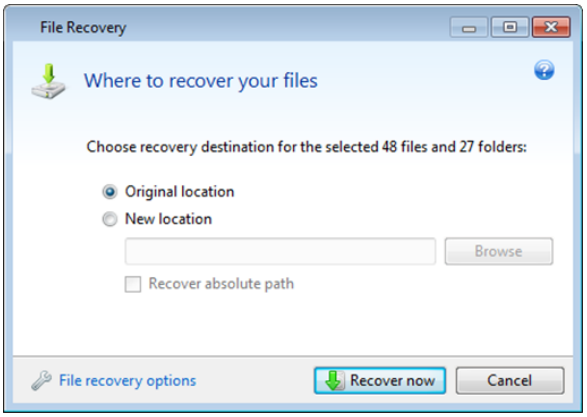
4.6 Recovering data from file-level backups

You will usually start recovering files and folders from Acronis Backup Explorer. When recovering a specific file version, you will start recovery from the **View Versions** window. In either case, starting recovery opens the **File Recovery** window.

Let's consider recovery of files and folders from the Backup Explorer.

1. Select in the Backup Explorer the files and folders you want to recover. For more information on selection in the Backup Explorer see Files and folders tab (p. 28). Click **Recover** to start recovery. This will open the **File Recovery** window.



2. Select a destination on your computer to where you want to recover selected files/folders. You can recover data to its original location or choose a new one, if necessary. To choose a new location, click the **Browse...** button.
3. When you choose a new location, the selected items will be recovered by default without recovering the original, absolute path. You may also wish to recover the items with their entire folder hierarchy. In this case select the **Recover absolute path** check box.
4. When needed, set the options for the recovery process (recovery process priority, file-level security settings, etc.). To set the options, click the **File recovery options** link. The options you set here will be applied only to the current recovery operation.
5. To start the recovery process, click the **Recover now** button.
6. The recovery progress will be shown in a special window. You can stop the recovery by clicking **Cancel**. Please keep in mind that the aborted recovery may still cause changes in the destination folder.

How to recover mail, application settings, and system state

This refers to recovering data from your E-mail backups. Application settings and system state can be recovered only from old backups created by an earlier Acronis True Image Home version, for instance, Acronis True Image Home 2010.

Let's see how you can recover data from e-mail, application settings, and system state backups.

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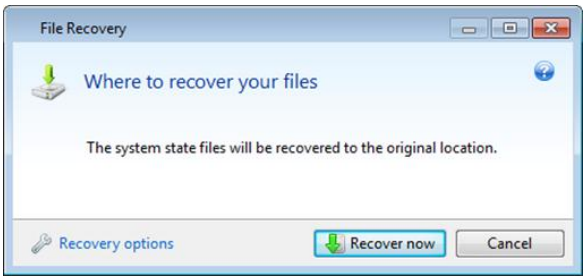
1. Select a required backup version in the Acronis Backup Explorer and click **Recover** to start recovery. This will open the **File Recovery** window.

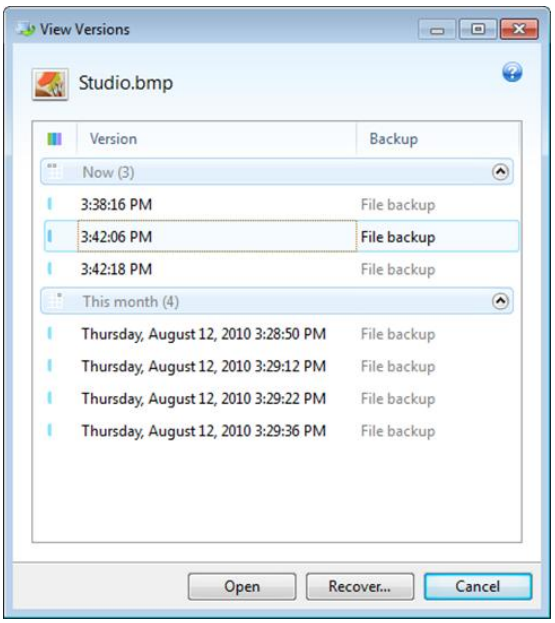


2. Such data can only be recovered to the original location. Therefore you can only change the recovery options. To change the recovery options, click the **Recovery options** link. The options you set here will be applied only to the current recovery operation.
3. To start the recovery process, click the **Recover now** button.
4. The recovery progress will be shown in a special window. You can stop the recovery by clicking **Cancel**. Please keep in mind that the aborted recovery may still cause changes in the original location.

4.7 Recovering file versions

If you need to recover a specific version of a file, select the file in the Backup Explorer. When you select the file, the **View versions** link appears below the file size information. Clicking the link opens the **View Versions** window with a list of all versions of the file in the backup.

Until you select a file version, the **Open** and **Recover...** buttons remain disabled. Selecting a file version enables the buttons:



Select the required version by its backup time and click the **Recover...** button. This will open the **File Recovery** window. Select the destination and recover the file version to the folder of your choice. For more information see Recovering data from file-level backups.

You can also recover the version by dragging it into a selected folder in Windows Explorer.

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To choose the correct version, you can open the version in the associated application and view the file contents. Choose the version by its backup time, and then click the **Open** button. True Image 2013 will recover the file version to a temporary folder. Then it will open the file using the associated application.

4.8 Recovering to different hardware

Using Acronis Universal Restore (provided by separately purchased True Image 2013 Plus Pack) will help you create a bootable system clone on different hardware. For more information see Acronis Universal Restore (p. 100). Choose this option when recovering your system disk to a computer with a dissimilar processor, different motherboard or a different mass storage device than in the system you originally backed up. This may be useful, for example, after replacing a failed motherboard or when deciding to migrate the system from a desktop to a laptop. You can use Acronis Universal Restore for recovering your system disk both from tib and vhd files.

Acronis Universal Restore is unavailable when recovering the system partition from an Acronis Nonstop Backup.

Before proceeding with recovery, make sure you have drivers for the hard disk drive controller or chipset drivers for the new motherboard. These drivers are critical for booting the operating system. You can download the drivers for your motherboard on the Vendor's web-site. Please note that if you downloaded the drivers in *.exe, *.cab, *.zip format, you should extract them first. The driver files should have *.inf, *.sys or *.oem extensions.

4.8.1 Recovering your system with the help of Acronis Universal Restore

1. Select on the **Backup and recovery** tab a backup containing your system partition.
2. Click the **Recover** button on the backup's box if the backup consists of a single version. When there are several backup versions, click **Explore and recover**. Select the backup version you want to recover on the **Disks and partitions** tab, and then click **Recover**.
3. When the **Disk Recovery** window opens, select the system partition's check box and choose the recovery destination.
4. Select the **Use Universal Restore** check box. Then click **Settings** to open the Drivers manager window.
5. If the target hardware has a specific mass storage controller (such as an SCSI, RAID, or Fibre Channel adapter) for the hard disks, specify where to find the driver or drivers for the specific hardware. If the driver is stored on a diskette or CD, select the **Search removable media for device drivers** box. If some drivers are stored on a local hard disk or a network share, click **Add custom driver locations...**. Then, browse to the driver or drivers location. After you finish specifying the drivers locations, click **OK**.

   Acronis Universal Restore does not support search for drivers on FTP servers.

   In most cases, Acronis Universal Restore will use three sources for drivers:

   - the removable media;

   - the drivers storage location or locations specified at this step; and

   - the Windows default driver storage folders (in the image being recovered).

   The program will find the most suitable of all available drivers and install them into the recovered system.
6. To start recovery, click the **Recover now** button.

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7. When a warning appears that you need to reboot the computer to continue the operation, click **Reboot** to continue.

During recovery, the program may be unable to find some driver in the specified sources and will display an error message. In this case, you can click **Ignore** to continue recovery or click **Cancel** to cancel the process and then try to find the required driver. You can then continue with the recovery process.

Acronis Universal Restore patches the registry and installs the new drivers after the system is recovered. Therefore, make sure that the driver location will still be available. For example, do not specify the search path for the drivers on the same disk to which you are recovering the backup. We recommend that you place the drivers on a separate USB hard disk, USB flash stick or on a network share.

After successfully recovering the system partition boot to the recovered Windows.

During the first booting, Windows will display numerous "Found new hardware" pop-up messages and will then ask you to reboot the computer.

If you use Acronis Universal Restore for recovering a backup of multiboot configuration with two or more editions of Windows, the most critical drivers will be replaced for all Windows installations.

4.8.2 Recovering your system with the help of Acronis Universal Restore under rescue media

In most cases it is preferable to use your bootable rescue media for system recovery. The rescue media must include Acronis Universal Restore add-on. Therefore, you need to re-create the rescue media after installing the True Image 2013 Plus Pack.

1. Make your rescue media the first boot device in BIOS. See Arranging boot order in BIOS (p. 103).
2. Boot from the rescue media and select **True Image**.
3. Click the **My Disks** link below **Recover** on the Welcome screen to start the Recovery Wizard. Then, choose the backup of the system disk for recovery. Because drive letters in the standalone True Image 2013 may differ from the way Windows identifies drives, you may need to specify the path to the backup file. In such a case click **Browse** and select the disk and folder that stores the backup.

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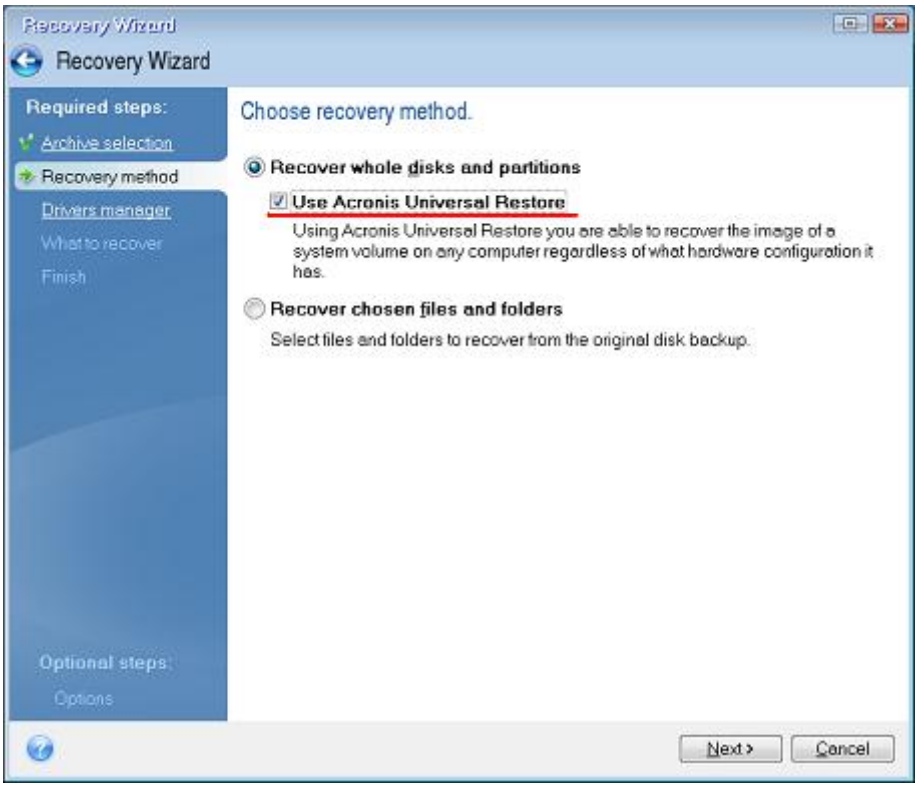
4. Choose **Recover whole disks and partitions** and select the **Use Acronis Universal Restore** check box.


Recovery Wizard
Recovery Wizard
Required steps:
Archive selection
Recovery method
Drivers manager
What to recover
Finish
Optional steps:
Options
Choose recovery method.
Recover whole disks and partitions
Use Acronis Universal Restore
Using Acronis Universal Restore you are able to recover the image of a system volume on any computer regardless of what hardware configuration it has.
Recover chosen files and folders
Select files and folders to recover from the original disk backup.
Next >
Cancel

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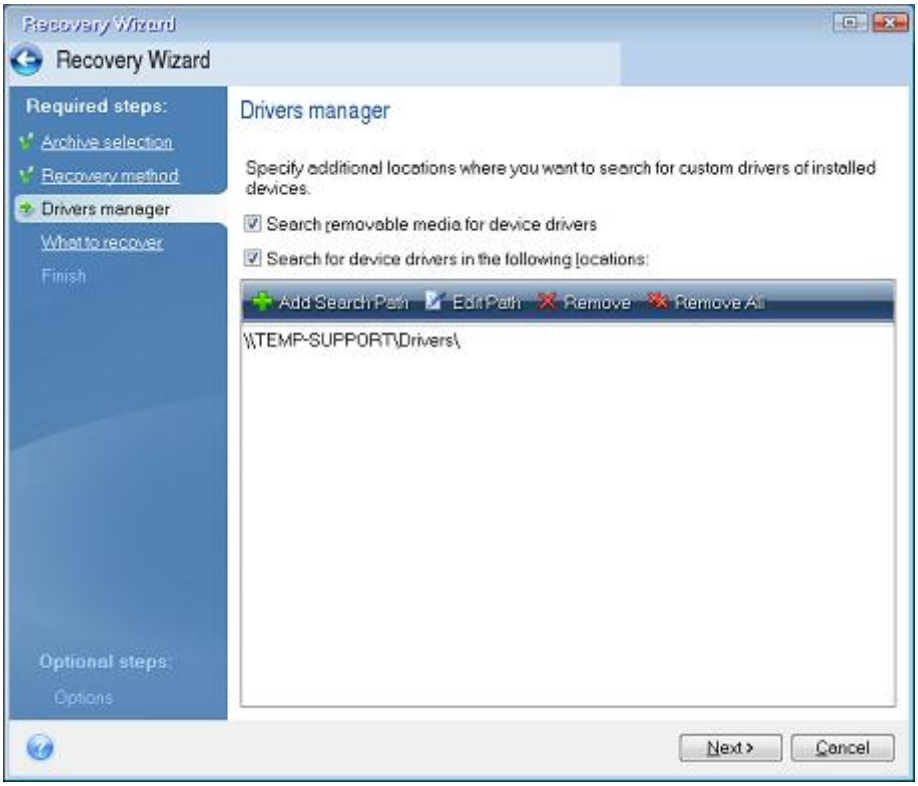
5. If the target hardware has a specific mass storage controller (such as an SCSI, RAID, or Fibre Channel adapter) for the hard disks, specify where to find the driver or drivers for the specific hardware at the **Drivers manager** step. If the driver is stored on a diskette or CD, select the **Search removable media for device drivers** box. If some drivers are stored on a local hard disk or a network share, select the **Search for device drivers in the following locations** box (when it is not selected by default). Specify the path to the driver or drivers after clicking **Add Search Path**.



When both boxes are selected at this step, Acronis Universal Restore will use three sources for drivers:

- the removable media;

- the drivers storage folder or folders specified at this step; and

- the Windows default driver storage folders (in the image being recovered).

The program will find the most suitable of all available drivers and install them into the recovered system.

6. Select the system disk at the **What to recover** step. Then, specify the destination of the disk being recovered (new system disk). At this point the program checks whether the destination disk is free. If not, you will be prompted by the Confirmation window stating that the destination disk contains partitions, perhaps with useful data. To confirm deletion of the partitions, click **OK**.
7. Carefully read the summary of operations at the **Finish** step and then click **Proceed**.

If the capacities of the source (backed up) disk and the destination disk are different, the new disk space will be proportionally distributed between the recovered partitions.

After successfully recovering the system partition, exit True Image 2013. Enter the BIOS, make the system hard disk the first boot device, and boot to the recovered Windows.

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4.9 Acronis Universal Restore

4.9.1 Purpose of Acronis Universal Restore

Universal Restore is part of the True Image 2013 Plus Pack which must be purchased separately. True Image 2013 Plus Pack has its own license and is installed from its own setup file. You need to re-create bootable media in order to make the newly installed Universal Restore add-on operational in the bootable recovery environment.

A system disk image can be restored easily on the hardware where it was created or to identical hardware. However, if you change the motherboard or use another processor version, a likely possibility in case of hardware failure, the recovered system could fail to boot.

Trying to move the system to a new more powerful computer will usually produce the same result. This is because the new hardware is incompatible with critical drivers included in the image.

Microsoft System Preparation Tool (Sysprep) will not resolve this problem. Sysprep allows you to replace only Plug-and-Play device drivers (sound cards, network adapters, video cards etc.).

However, System Hardware Abstraction Layer (HAL) and mass storage device drivers must be identical on both the source and the target computers (see Microsoft Knowledge Base, articles 302577 and 216915).

Acronis Universal Restore technology provides an efficient solution for hardware-independent system restoration by replacing the crucial Hardware Abstraction Layer (HAL) and mass storage device drivers.

Acronis Universal Restore is applicable for:

1. Instant recovery of a failed system on different hardware
2. Hardware-independent cloning of operating systems

4.9.1.1 Limitations in using Acronis Universal Restore

1. The system recovered by Acronis Universal Restore might not start, if the partition structure in the image or the target disk partitioning does not coincide with that of the source disk. The loader restored from the image will point to the wrong partition and the system will not boot or will malfunction.

This may occur if you:

- back up only selected partitions but not the entire source disk
- restore only selected partitions and not the entire source disk. In some cases, especially if your system resides on a partition other than the original one, this can confuse the loader and prevent the restored system from rebooting.

To avoid this problem, we recommend that you back up and recover the entire system disk.

2. The Acronis Universal Restore option does not work if a computer is booted with Acronis Startup Recovery Manager (using F11) or the backup image is located in Acronis Secure Zone. This is because Acronis Startup Recovery Manager and Acronis Secure Zone are primarily meant for data recovery on the same computer.

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4.9.2 General principles of Acronis Universal Restore

1. Automatic selection of HAL and mass storage drivers

Acronis Universal Restore searches the Windows default driver storage folders (in the image being restored) for HAL and mass storage device drivers and installs drivers that best fit the target hardware.

You can specify a custom driver repository (a folder or folders on a network drive or CD) which will also be used to search for drivers. In addition, Acronis Universal Restore can search drivers on removable media.

The Windows default driver storage folder is determined in the registry value "DevicePath", which can be found in the registry key

HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\DevicePath. This storage folder is usually WINDOWS/inf.

2. Installing drivers for Plug-and-Play devices Acronis Universal Restore relies on the built-in Plug-and-Play discovery and configuration process to handle hardware differences in devices that are not critical for the system start. This includes video, audio and USB. Windows takes control over this process during the logon phase. If some of the new hardware is not detected, you will have a chance to install the drivers for it later manually.

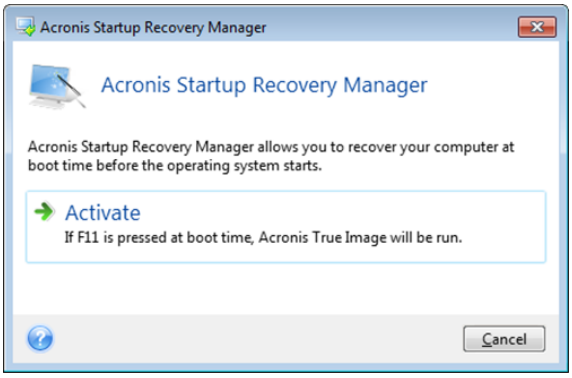
4.10 How to use Acronis Startup Recovery Manager

The Acronis Startup Recovery Manager enables you to start True Image 2013 on a local computer without loading the operating system.

If Windows won't load, this feature allows you to use True Image 2013 by itself to recover damaged partitions.

To be able to use Acronis Startup Recovery Manager at boot time:

- Click the **Tools and utilities** tab and then select **Acronis Startup Recovery Manager**
- Click the **Activate** button


Acronis Startup Recovery Manager
Acronis Startup Recovery Manager
Acronis Startup Recovery Manager allows you to recover your computer at boot time before the operating system starts.
Activate
If F11 is pressed at boot time, Acronis True Image will be run.
Cancel

Attention

When Acronis Startup Recovery Manager is activated, it overwrites the master boot record (MBR) with its own boot code. If you have any third-party boot managers installed, you will have to reactivate them after activating the Startup Recovery Manager. For Linux loaders (e.g. LiLo and

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GRUB), you might consider installing them to a Linux root (or boot) partition boot record instead of an MBR before activating Acronis Startup Recovery Manager.

If a failure occurs, turn on the computer and press F11 when you see the "Press F11 for Acronis Startup Recovery Manager" message. This will start a standalone version of True Image 2013 that differs only slightly from the complete version. Browse for a backup containing an image of your system partition and recover your system.

Disk letters in standalone True Image 2013 might sometimes differ from the way Windows identifies drives. For example, the D: disk identified in the standalone True Image 2013 might correspond to the E: disk in Windows. The disk labels and information on partition sizes, file systems, drive capacities, their manufacturers, and model numbers can help in correctly identifying the disks and partitions.

You won't be able to use the previously activated Acronis Startup Recovery Manager if the Try&Decide is turned on. Rebooting the computer in the Try mode will allow you to use Acronis Startup Recovery Manager again.

4.11 About recovery of dynamic/GPT disks and volumes

1. True Image 2013 supports recovery of dynamic volumes to the following locations on the local hard drives:

- To the original location (to the same dynamic volume).
- To another dynamic disk or volume.
- To unallocated space of the dynamic group.
- To a basic disk.

If a dynamic volume is recovered to an unallocated space of the dynamic group, the recovered volume type will be the same as it was in the backup.

Manual resizing of dynamic volumes during recovery to dynamic disks is not supported. If you need to resize a dynamic volume during recovery, it should be recovered to a basic disk.

When performing a so called "bare-metal recovery" of dynamic volume(s) to a new unformatted disk, the recovered volumes become basic. If you want the recovered volumes to remain dynamic, the target disk(s) should be prepared as dynamic (partitioned and formatted). This can be done using third-party tools, for example, Windows Disk Management snap-in.

2. The target disk's partition style after recovery. It depends on whether your computer supports UEFI and on whether your system is BIOS-booted or UEFI-booted. See the following table:

	My system is BIOS-booted (Windows or Acronis Bootable Media)	**My system is UEFI-booted (Windows or Acronis Bootable Media)**
My source disk is MBR and my OS does not support UEFI	The operation will not affect neither partition layout nor bootability of the disk: partition style will remain MBR, the destination disk will be bootable in BIOS.	After operation completion, the partition style will remain MBR, but the operating system will fail booting from UEFI, since your operating system does not support it.

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My source disk is MBR and my OS supports UEFI	The operation will not affect neither partition layout nor bootability of the disk: partition style will remain MBR, the destination disk will be bootable in BIOS.	The destination partition will be converted to GPT style that will make the destination disk bootable in UEFI.
My source disk is GPT and my OS supports UEFI	After operation completion, the partition style will remain GPT, the system will fail booting on BIOS, because your operating system cannot support booting from GPT on BIOS.	After operation completion, the partition style will remain GPT, the operating system will be bootable on UEFI.

To ensure Windows bootability after recovery, you must recover an image of your source disk in the disk mode.

3. The target volume type does not change when recovering over an existing volume. Examples:

- When recovering a dynamic volume over a basic volume the target volume remains basic.
- When recovering a dynamic striped volume over a dynamic spanned volume the target volume remains spanned.

4. Recovering a basic volume or disk to the dynamic group:

- When recovering a basic volume to an unallocated space of the dynamic group, the recovered volume becomes dynamic.
- When recovering a basic disk to a dynamic disk of a dynamic group consisting of two disks, the recovered disk remains basic. The dynamic disk to which the recovery is performed becomes "missing" and a spanned/striped dynamic volume on the second disk becomes "failed".

4.12 Backup protection dialog box

A backup file can be protected with a password. You can set password protection in backup options while creating a backup.

If you try to recover data from a password-protected backup, mount it or append an incremental backup to such a backup, the program will ask for the password in a special window, allowing access only to authorized users. In this case, you must specify the correct password for the selected backup file. Only then will you be able to proceed with the selected operation.

4.13 Arranging boot order in BIOS

BIOS has a built-in setup utility for initial computer configuration. To enter it, you have to press a certain key combination (**Del, F1, Ctrl+Alt+Esc, Ctrl+Esc**, or some other, depending on your BIOS) during the POST (power-on self test) sequence that starts immediately after you turn your computer on. Usually the message with the required key combination is displayed during the startup test. Pressing this combination takes you to the menu of the setup utility that is included in your BIOS.

The menu can differ in appearance, sets of items and their names, depending on the BIOS manufacturer. The most widely known BIOS makers for PC motherboards are Award/Phoenix and AMI. Moreover, while items in the standard setup menu are mostly the same for various BIOSes, items of the extended (or advanced) setup heavily depend on the computer and BIOS version.

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Among other things, the BIOS menu allows you to adjust the **boot order**.

Computer BIOS allows booting operating systems not only from hard disks, but also from CD-ROMs, DVD-ROMs, and other devices. Changing the boot order may be required, for example, to make your rescue media (CD, DVD or USB stick) device the first booting device.

If there are several hard disks installed in your computer labeled as C:, D:, E:, and F:, you can change the boot order so that an operating system is booted from, for example, disk E:. In this case, you have to set the boot order to look like E:, CD-ROM:, A:, C:, D:.

*This does not mean that booting is done from the first device in this list; it only means that the **first attempt** to boot an operating system will be from this device. There may be no operating system on disk E:, or it may be inactive. In this case, BIOS queries the next device in the list.*

The BIOS numbers disks according to the order in which they are connected to IDE controllers (primary master, primary slave, secondary master, secondary slave); next go the SCSI hard disks.

This order is broken if you change the boot order in BIOS setup. If, for example, you specify that booting has to be done from hard disk E:, numbering starts with the hard disk that would be the third in usual circumstances (it is usually the secondary master for IDE hard drives).

*Some motherboards have a so called boot menu opened by pressing a certain key or key combination, for instance, **F12**. The boot menu allows selecting the boot device from a list of bootable devices without changing the BIOS setup.*

4.14 Recovery options

In the **Disk Recovery Options**, **File Recovery Options** and **E-mail Recovery Options** windows you can configure options for a disk/partition, file and e-mail recovery processes respectively. After you installed the application, all options are set to the initial values. You can change them for your current recovery operation only or for all further recovery operations as well. Select the **Save the settings as default** check box to apply the modified settings to all further recovery operations by default.

Note, that disk recovery options, file recovery options and e-mail recovery options are fully independent, and you should configure them separately.

If you want to reset all the modified options to their initial values that were set after the product installation, click the **Reset to initial settings** button.

In this section

Disk recovery mode 105
Pre/Post commands for recovery 105
Validation option.....105
Computer restart 106
File recovery options.....106
Overwrite file options 106
Performance of recovery operation 107
Notifications for recovery operation 107

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4.14.1 Disk recovery mode

With this option you can select the disk recovery mode for image backups.

- **Recover sector-by-sector** - select this check box if you want to recover both used and unused sectors of disks or partitions. This option will be effective only when you choose to recover a sector-by-sector backup.

4.14.2 Pre/Post commands for recovery

You can specify commands (or even batch files) that will be automatically executed before and after the recovery procedure.

For example, you may want to start/stop certain Windows processes, or check your data for viruses before recovery.

To specify commands (batch files):

- Select a command to be executed before the recovery process starts in the **Pre-command** field. To create a new command or select a new batch file, click the **Edit** button.
- Select a command to be executed after the recovery process ends in the **Post-command** field. To create a new command or select a new batch file, click the **Edit** button.

Please do not try to execute interactive commands, i.e. commands that require user input (for example, "pause"). These are not supported.

4.14.2.1 Edit user command for recovery

You can specify user commands to be executed before or after recovery:

- In the **Command** field type-in a command or select it from the list. Click **...** to select a batch file.
- In the **Working directory** field type-in a path for command execution or select it from the list of previously entered paths.
- In the **Arguments** field enter or select command execution arguments from the list.

Disabling the **Do not perform operations until the command execution is complete** parameter (enabled by default), will permit the recovery process to run concurrently with your command execution.

The **Abort the operation if the user command fails** (enabled by default) parameter will abort the operation if any errors occur in command execution.

You can test the command you entered by clicking the **Test command** button.

4.14.3 Validation option

- **Validate backup before recovery**

  The preset is **disabled**.

  Before data is recovered from the backup, True Image 2013 can check its integrity. If you suspect that the backup might have been corrupted, enable this option.

- **Check the file system after recovery**

  The preset is **disabled**.

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Having recovered a partition from an image, True Image 2013 can check the integrity of the file system. To do so, enable this option.

Limitations on use of this option:

- Check of the file system is available only when recovering partitions using FAT16/32 and NTFS file systems.
- The file system will not be checked if a reboot is required during recovery, for example, when recovering the system partition to its original place.

4.14.4 Computer restart

The preset is **Disabled**.

If you want the computer to reboot automatically when it is required for recovery, select the **Restart the computer automatically if needed for the recovery** check box. This may be used when a partition locked by the operating system has to be recovered. Enabling the option allows rebooting the computer without user interaction during recovery.

4.14.5 File recovery options

You can select the following file recovery options:

- **Recover files with their original security settings** - if the file security settings were preserved during backup (see File-level security settings for backup (p. 71)), you can choose whether to recover them or let the files inherit the security settings of the folder where they will be recovered to. This option is effective only when recovering files from file/folder backups.
- **Set current date and time for recovered files** - you can choose whether to recover the file date and time from the backup or assign the files the current date and time. By default the file date and time from the backup will be assigned.

4.14.6 Overwrite file options

Choose what to do if the program finds a file in the target folder with the same name as in the backup.

This option is available only while restoring data from file-level backups.

Selecting the **Overwrite existing files** check box will give the files from the backup unconditional priority over the files on the hard disk, though, by default, the more recent files and folders are protected against overwriting. If you want to overwrite those files and folders too, clear the appropriate check box.

If you do not need to overwrite some files:

- Select/clear the **Hidden files and folders** check box to enable/disable overwriting of all hidden files and folders.
- Select/clear the **System files and folders** check box to enable/disable overwriting of all system files and folders.
- Select/clear the **More recent files and folders** check box to enable/disable overwriting of new files and folders.
- Click **Add specific files and folders** to manage the list of custom files and folders that you do not want to overwrite.

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- To disable overwriting of specific files, click the **Add...** button to create an exclusion criterion.
- While specifying the criteria, you can use the common Windows wildcard characters. For example, to preserve all files with extension **.exe**, you can add ***.exe**. Adding **My???.exe** will preserve all .exe files with names consisting of five symbols and starting with "my".

To delete a criterion, for example, added by mistake, click the Delete icon to the right of the criterion.

4.14.7 Performance of recovery operation

On the **Performance** tab you can configure the following settings:

Operation priority

Changing the priority of a backup or recovery process can make it run faster or slower (depending on whether you raise or lower the priority), but it can also adversely affect the performance of other running programs. The priority of any process running in a system, determines the amount of CPU usage and system resources allocated to that process. Decreasing the operation priority will free more resources for other CPU tasks. Increasing backup or recovery priority may speed up the process by taking resources from the other currently running processes. The effect will depend on total CPU usage and other factors.

You can set up the operation priority:

- **Low** (enabled by default) - the backup or recovery process will run slower, but the performance of other programs will be increased.
- **Normal** - the backup or recovery process will have the equal priority with other processes.
- **High** - the backup or recovery process will run faster, but the performance of other programs will be reduced. Be aware that selecting this option may result in 100% CPU usage by True Image 2013.

4.14.8 Notifications for recovery operation

Sometimes a backup or recovery procedure can last an hour or longer. True Image 2013 can notify you when it is finished via e-mail. The program can also duplicate messages issued during the operation or send you the full operation log after operation completion.

By default all notifications are disabled.

Free disk space threshold

You may want to be notified when the free space on the backup storage becomes less than the specified threshold value. If after starting a backup True Image 2013 finds out that the free space in the selected backup location is already less than the specified value, the program will not begin the actual backup process and will immediately inform you by displaying an appropriate message. The message offers you three choices - to ignore it and proceed with the backup, to browse for another location for the backup or to cancel the backup.

If the free space becomes less than the specified value while the backup is being run, the program will display the same message and you will have to make the same decisions.

To set the free disk space threshold:

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- Select the **Show notification message on insufficient free disk space** check box
- In the **Size** box, type or select a threshold value and select a unit of measure

True Image 2013 can monitor free space on the following storage devices:

- Local hard drives
- USB cards and drives
- Network shares (SMB/NFS)

*The message will not be displayed if the **Do not show messages and dialogs while processing (silent mode)** check box is selected in the **Error handling** settings.*

This option cannot be enabled for FTP servers and CD/DVD drives.

E-mail notification

You can specify an e-mail account that will be used for notifying you of the recovery process.

To specify the e-mail settings:

- Select the **Send e-mail notifications about the operation state** check box.
- Enter the e-mail address in the **E-mail address** field. You can enter several e-mail addresses in a semicolon-delimited format.
- Enter the outgoing mail server (SMTP) in the **Outgoing mail server (SMTP)** field.
- Set the port of the outgoing mail server. By default the port is set to 25.
- Enter the user name in the **User name** field.
- Enter the password in the **Password** field.
- To check whether your settings are correct, click the **Send test message** button.

Additional notification settings:

- To send a notification concerning process completion, select the **Send notification upon operation's successful completion** check box.
- To send a notification concerning process failure, select the **Send notification upon operation failure** check box.
- To send a notification with operation messages, select the **Send notification when user interaction is required** check box.
- To send a notification with full log of operations, select the **Add full log to the notification** check box.

4.15 Restoring computer to factory settings

If your brand new computer was bundled with a backup of the computer's factory configuration, True Image 2013 can recover this backup and restore the computer to its factory settings. The system will be reverted to the state it was in when the computer was received from the store.

***Caution:** Restoration will erase all personal data and programs on the computer including all your backups in Acronis Secure Zone.*

How to check if factory configuration can be restored on your computer

True Image 2013 offers three ways to restore a computer to factory settings:

- Directly in Windows by using the standard recovery feature of True Image 2013.

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- When booting into Acronis Startup Recovery Manager.
- When booting from factory bootable media.

Recovery of the original configuration under Windows or by using Acronis Startup Recovery Manager is possible if the computer has an Acronis Secure Zone that has a backup of the computer's factory configuration. This backup is normally created and provided to Acronis Secure Zone by a hardware supplier who delivers computers to end-users.

When recovery is from factory bootable media, the media includes a backup with factory image configuration.

Restoring factory settings under Windows

In Windows, the factory configuration is restored by using the standard recovery feature of True Image 2013.

To restore the computer to factory settings:

1. Start True Image 2013.
2. Click the **Backup and recovery** tab.
3. In the list of backups, choose the backup named *Original configuration*.
4. Click **Recover**.
5. When prompted, click **Reboot**.

   The operation will continue after the computer restart. Once the operation is complete, the computer will load the original Windows installation.

Restoring factory settings using Acronis Startup Recovery Manager

To restore the computer to factory settings:

1. Power on the computer.
2. When prompted, press **F11** to run Acronis Startup Recovery Manager.
3. Select **Recover**.

   If the backup consists of several versions, select the version that you want to recover.
4. Confirm the operation by clicking **Yes**.

Once the operation is complete, the computer will be restarted or powered off. At the next computer boot up, it will load the original Windows installation.

Restoring factory settings from factory bootable media

These instructions apply to factory bootable media that you either created yourself or received from your hardware supplier together with your brand new computer.

For instructions on how to create factory bootable media, see Creating factory bootable media (p. 182).

To restore the computer to factory settings:

1. Boot up the computer using the factory bootable media.
2. Select **Recover**.
3. Confirm the operation by clicking **Yes**.

Once the operation is complete, the computer will be restarted or powered off. At next computer boot up, it will load the original Windows installation.

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5 Synchronizing data

In this section

About the Sync feature 111
How we ensure security of your data 111
Acronis server login 112
What you can and cannot synchronize 112
Sync icons 113
Default sync 114
Sync creation 114
Synchronizing a mobile device 118
Versions of synchronized files 119
How to clean up your space on Acronis Cloud 119
How to recover a deleted file 121
How to share folders 122
How to create public links to files and folders 123
How to unlink a device from your account 123
How to revoke an invitation to share a sync 124
How to leave a sync 125

5.1 About the Sync feature

The main highlights of the Sync feature:You have the same data - documents, photos, videos, etc. - on all of your computers and mobile devices with iOS and Android operating systems. Your data is within easy reach anywhere and anytime. No more e-mailing files to yourself or carrying a flash stick all the time.

- With Acronis Sync you can sync your data with other people, for example, with your colleagues working on a joint project. Sync will ensure that all of you always have the same project files.
- You can create as many syncs as you need. For example, you can have separate syncs for keeping important data in sync on your computers and for sharing your photos with friends and relatives.
- The Acronis Cloud keeps your synced files and versions of those files. This lets you roll back to a previous file version whenever you need it.
- You can access files in the Acronis Cloud from all your computers and mobile devices.
- You can also access the Cloud using a Web browser, without having to install our application.

5.2 How we ensure security of your data

You may want to be sure that your personal files won't get into the wrong hands. You may be especially concerned about your mobile device, because all of your synced data will be transferred through the Internet.

Let us assure you that your data will be safe. First of all, we use encrypted protocols (SSL, TLS) to transfer all data through both the Internet and LAN . To access the synced data, sign in to your account by providing the e-mail address and password for that account.

Furthermore, we store your data on our servers in encrypted form. Only you have access to your encrypted data.

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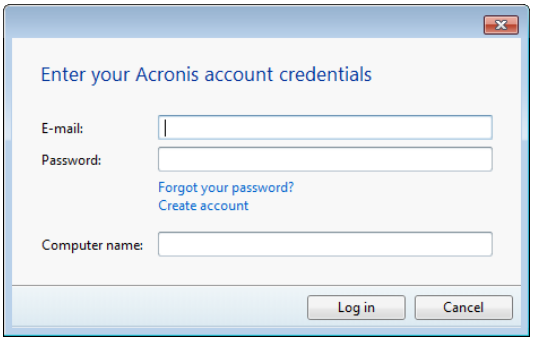
5.3 Acronis server login

To start using the data synchronization feature or online backup, you must enter the e-mail address and password of your Acronis account. Also we recommend that you name your computer. You may type any name you like, not necessarily the name assigned for the operating system.



If you do not have Acronis account, click **Create account** and fill in the registration form on Acronis Web site.

If you have forgotten your password, click **Forgot your password?** and follow the instructions on the opened Web page. A new password will be sent to you by e-mail.

After providing the required information, click **Log in**.

5.4 What you can and cannot synchronize

You can synchronize data stored in two or more folders. Let's consider where these folders may be located and what data they may contain.

Storage types

A synchronization process may be established between:

- Two local folders on the same computer (except a folder and its subfolder)
- A local folder on a computer and a folder on a storage device (such as a USB flash drive, USB hard drive, NAS, etc.)
- Two folders on two storage devices
- Two or more folders on two or more computers

Within one sync process you may assign only one sync folder on every computer and storage device (except a sync between two local folders).

You cannot select for synchronization a single file. To synchronize the file, select for synchronization the folder that contains that file.

Data types

You can synchronize the following data:

- Files (your photos, music, videos, documents, etc.), except those listed below

  Only the native FAT32 and NTFS file attributes are synchronized. If the synced folders belong to different file systems, the program synchronizes only the attributes supported by the both file systems.

- Other folders inside the sync folder (that is, sync subfolders) and their content

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You cannot synchronize the following data:

- Disks and partitions
- System files and folders
- Hidden files and folders
- Temporary files and folders
- System registry
- Databases
- Data of e-mail programs (including Microsoft Outlook and others)
- Other data that cannot be represented as separate files or folders (for example, contacts from your address book)
- Windows 7 and Windows 8 libraries (Documents, Music, etc.)

5.5 Sync icons

While working with syncs you will see special icons. The icons give you the following information:

- Type and current state of your syncs (the icons are shown on sync boxes and in the notification area).
- Current state of synced files and folders (the icons are shown in Acronis Time Explorer and Windows Explorer).

Sync boxes

Sync type icons:

Sync within one computer (p. 115) (including sync with removable and remote storage devices).

Synchronization between computers with the same account (for example between your home computers). See details in How to sync data between your computers (p. 115).

Synchronization between computers which belong to different accounts (for example between your computer and your friend's computer). See details in How to sync data with another person (p. 116).

Sync state icons:

The last synchronization completed successfully.

The sync is in progress at the moment.

The sync is paused.

An error occurred during the last synchronization.

Windows Explorer

Sync state icons for files and folders:

The file or folder is synchronized.

The file or folder is being synced at the moment.

The file or folder has not been synchronized because of an error.

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The notification area

Sync state icons:

	The last synchronization completed successfully.
(rotating)	The sync is in progress at the moment.
(static)	All syncs are paused or each sync has only one participant.
	An error occurred during the last synchronization.

5.6 Default sync

When you install True Image 2013, the installer creates the default sync. By default this sync is named Sync.

This sync has the following main features:

- You can use it right after the installation finishes. If you signed in to your Acronis account, simply drag files you want to sync into the default sync folder.
- The default sync always syncs with the Acronis Cloud. You cannot unsync the storage.
- It also always stores file versions on the Acronis Cloud.
- As long as True Image 2013 is installed, you cannot delete the default sync folder. If you delete the folder, for example, using Windows Explorer, it will be recreated during the next program start.
- The contents of the default sync folder automatically sync with the default sync folders on other computers registered under the same Acronis account.
- It also automatically syncs with your mobile devices that have True Image app installed.

Using the default sync is the easiest way to sync your data. If needed, you can also create other syncs.

5.7 Sync creation

Before you begin a new sync creation, please choose which computers and/or storage devices will take part in your new sync. Then, make sure that the following conditions are met:

- True Image 2013 or True Image Home 2012 is installed on every computer.
- If you connect your computers through a local area network, make sure that local connection is established.
- All owners of the involved computers have Acronis accounts.
- Every computer has connection to the Internet.

Depending on which computers and/or storage devices will be involved in your new sync, select one of the following sync types:

- Sync within one computer (p. 115) (including sync with removable and remote storage devices).
- Sync between two or more computers (p. 115).

If needed, you can combine these two sync types in one sync.

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5.7.1 How to sync data between your computers

Let's see how to sync data between two or more computers which belong to the same Acronis account. For example, you need to sync data between your home computers or between your home computer and work computer.

If you use the default sync folder on both of your computers, the procedure is very simple.

1. Install True Image 2013 on both computers.
2. Sign in under your account on the computers.
3. Drag the files you want to synchronize into the Sync folder and they will be automatically synced across the computers.

You can place both files and folders into the Sync folder.

5.7.2 How to sync with a local folder

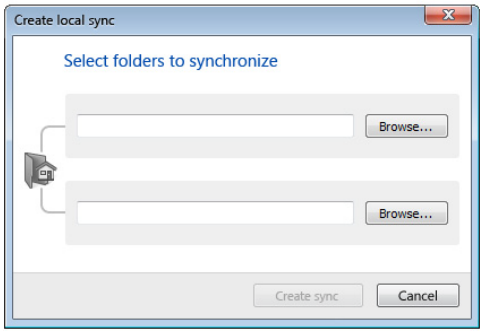
You can sync any two folders of your choice on one computer. These include folders on:

- computer's hard disks
- removable or remote storage devices
- USB flash drives
- USB hard drives
- NAS (Network Attached Storage) devices

If you synchronize with a folder located on an NAS or USB drive, make sure that connection to the NAS is established or that the USB drive is attached to your computer before creating a new sync.

To synchronize two local folders:

1. Start True Image 2013 and then click the **Synchronization** tab.
2. Click **Sync local folders**.
3. In the opened window, click **Browse...** and specify the first folder to sync.



4. Specify the second folder in the same way.
5. Click **Create sync**.

*You can also create a new sync from Windows Explorer. Right-click the folder you want to synchronize and then select **Synchronization** -> **Sync with** -> **Local folder...**. Select the folder for synchronization in the opened **Select folder** window.*

Here are some notes on this type of sync:

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- One of the synced folders can reside on a remote SMB (Server Message Block) share. It does not matter if the share is mapped or not.

  ***Hint**: By using a shared folder, you can sync two computers without necessity to install True Image 2013 on the computer where the shared folder resides.*

- If you disconnect the removable device or NAS, the sync pauses. It resumes when you reattach the device.
- After the sync is created, you can add to it another computer or Acronis Cloud.

***Hint:** If you want your USB drive to have a regularly updated copy of a local folder, create an empty folder on the USB drive in advance and select it afterwards as the sync folder.*

***Hint:** Keep your USB drive attached while working with the sync folder on your computer. Firstly, you will not forget to sync your files at the end of your work. Secondly, True Image 2013 will process data changes gradually and quickly.*

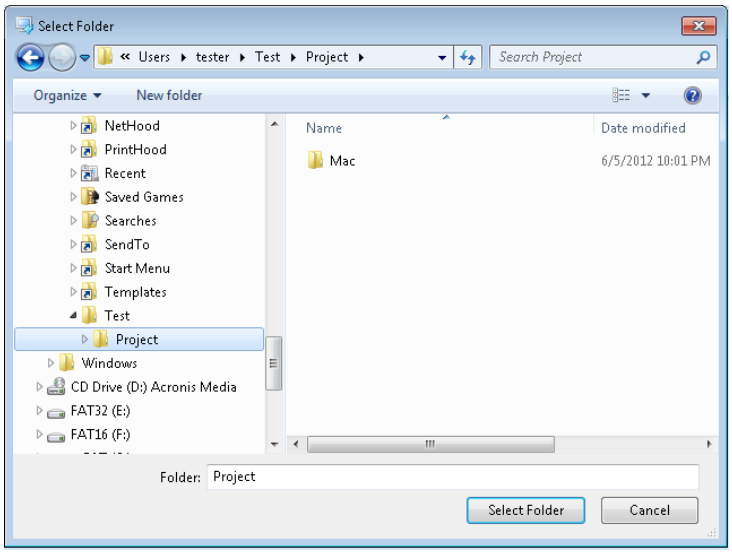
5.7.3 How to sync data with other people

You can sync data between computers which belong to different Acronis accounts. For example, sync with your colleague who is working on the same project.

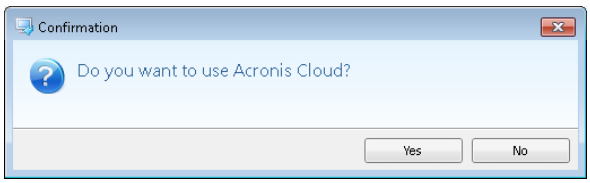
Steps to perform on a computer that will own the sync:

Only the sync owner can change settings of the sync, invite other users, delete the sync, etc.

1. Start True Image 2013 and then click **New sync**.
2. In the opened window, browse to the folder to synchronize and then click **Select folder**.



3. If you want to store data versions on Acronis Cloud, click **Yes** in the **Confirmation** window, otherwise click **No**.



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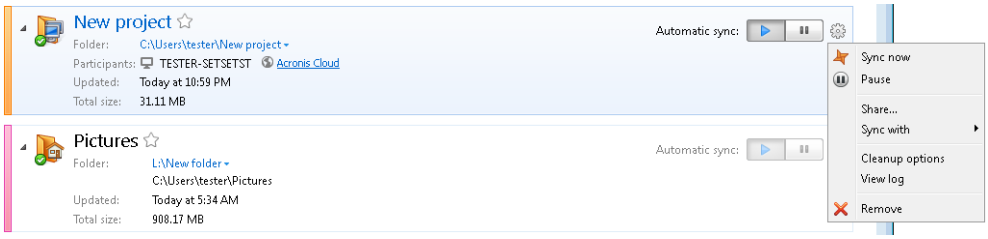
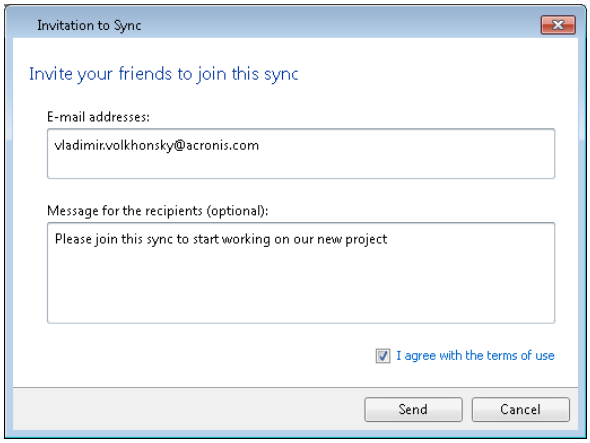
4. On the created sync box, click the Settings icon ( ) and then select **Share...**.



5. Type the e-mail address of the user or users who you want to invite. Use commas as separators if you invite several users. Optionally you can type a message to the invited person.
6. Select the **I agree with the terms of use** check box and click **Send**.


Invitation to Sync
Invite your friends to join this sync
E-mail addresses:
vladimir.volkhonsky@acronis.com
Message for the recipients (optional):
Please join this sync to start working on our new project
I agree with the terms of use
Send
Cancel

Steps to perform by the invited person:

1. Find and open the e-mail message with invitation to sync.
2. To join the sync, click **Accept invitation**. You will be taken to the appropriate Web page for completing the acceptance.
3. Start True Image 2013.
4. Find the required sync box and click **Join this sync**.

5. In the **Browse for Folder** window, select the folder that you want to synchronize and click **OK**.

Sync between three or more computers

If you create a sync between three or more computers, invite to sync your next colleague. Type your colleague's e-mail address. The computer's owner needs to perform the steps listed for the invited person. The procedure is similar for all other persons.

Hint: *When you synchronize files with your friends, we recommend that each of you select for synchronization an empty folder and then move folders with files inside the empty folder. As a result, your files and your friends' files will be stored in separate subfolders. This allows you to avoid muddle in the synced folder.*

5.7.3.1 Sync conflict resolution

A sync conflict may only happen between two or more computers. This may happen when you synchronize data with another user (your relative, friend or colleague).

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For example, you and your friend work with the same file located in your sync folders. Both of you have changed it and simultaneously saved the changes. This is a sync conflict because True Image 2013 must process two changes of the file (yours and your friend's) within one sync operation. Usually, there is only one file change. This conflict will be resolved by renaming the file which was saved first. Then, you and your friend have two files in your sync folders. One of them has the original file name. The other file name consists of the original file name, the name of the computer where it was changed, and the time when it was saved.

Example of file renaming

You and your friend work with file **file_name.doc** on the 15-th of April, 2011. You saved your changes at 10:04, and your friend saved his changes at 10:06. After synchronization your folders contain the following files:

- **file_name.doc** - the file with your friend's changes
- **file_name your_computer_name 15.04.2011 10.04.doc** - the file with your changes

A sync conflict occurs every time you and your friend simultaneously create, save, rename or delete files or subfolders inside the sync folders. There are many different variations of this conflict, but only one of them leads to deletion of a file or subfolder. This happens when both of you simultaneously delete the same file or subfolder. In all other cases, True Image 2013 will keep either one or two files and one of them will be renamed.

5.8 Synchronizing a mobile device

Your mobile device automatically syncs with Acronis Cloud and with all computers where you have installed True Image 2013.

To start syncing:

1. Install Acronis True Image app. See How to install True Image app on your mobile device (p. 118).
2. Open the app.
3. Type in the e-mail and password for your account.
4. Tap **Sign in**.

Once you sign in, your device automatically starts syncing.

If you do not change the default settings, subsequent signing in and syncing will proceed automatically.

5.8.1 How to install True Image app on your mobile device

To sync with your mobile device, you need to install the appropriate True Image app.

Depending on your mobile device, go to App Store or Google Play and search for the True Image app.

For example, to find and install True Image app for iOS:

1. On your iPhone, open **App Store**.
2. Tap the Search icon.
3. Enter **acronis** in the search field.
4. Select **acronis true image** in the search results to go to the app page.

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5. Follow the standard installation procedure.

The procedure to find and install the Android app is similar.

5.9 Versions of synchronized files

True Image 2013 gives you an opportunity to undo the changes that were made to your files as a result of synchronization. If you find that one of your files contains an undesirable change, you can view previous versions of this file and then choose and rollback to its correct version. See details in Reverting to a previous file version (p. 119).

All versions are stored on the Acronis Cloud which is accessible via the Internet. To use the Acronis Cloud, you must have a subscription to the Acronis Cloud service. If you do not have a subscription, a trial subscription with 250 GB of storage space will be automatically provided. See details in Subscription information (p. 127).

To delete obsolete versions, you can set automatic cleanup rules. See details in How to clean up your space on Acronis Cloud (p. 119).

When you turn off the storing versions option, all versions except the latest one are deleted from the Cloud.

If you use a trial version of True Image 2013, all stored versions, including the latest one, are deleted from the Cloud when the trial period expires.

Each user turns the option on and manages file versions independently of other users. If you sync some data with a friend who uses a different Acronis account, you can decide for yourself whether to turn on the option or not. Version storages allocated on the Cloud are also separate.

5.9.1 Reverting to a previous file version

If you store sync history on the Acronis Cloud, you can revert the current version of a synchronized file to its previous version. This is useful when you want to undo some undesirable sync operation.

To revert to a previous file version:

1. On the **Synchronization** tab of the main screen, find the sync box with the needed file. Then click the **Acronis Cloud** link.
2. After the list of sync items opens in your Web browser, select the file which you want to revert to a previous version. Then click the gear icon at the right-hand side. Select **View versions** in the opened menu.
3. Select the version to which you want to rollback. The version's exact date and time will be displayed. Your current version will be reverted to the state it was at that point in time.
4. Click **Recover** to proceed. The selected version will become the latest version on the Cloud. Then, it will be downloaded to the computer that owns the sync.

5.10 How to clean up your space on Acronis Cloud

You can clean up your Acronis Cloud space to free it up for fresher data. This can be done in several ways.

The easiest way is to let the program clean up the space automatically. By default, the program keeps a maximum 10 versions of your modified files and deletes versions which are older than 30 days. You can change these default values.

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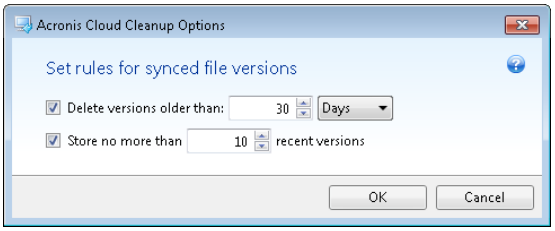
To view or change the cleanup options for a sync:

1. Start True Image 2013 and click the **Synchronization** tab.
2. Click the Settings icon ( ) on the right-hand side of the required sync and then select **Cleanup options**.



3. Change the options and click **OK**, otherwise click **Cancel**.

How to clean up the Acronis Cloud space manually

1. Click the **Acronis Cloud** link on the box of the default sync and then click the **Storage status** tab.
2. Click the **Clean up space** link in the center of the screen.
3. When the appropriate dialog appears, choose which versions you want to delete:
   - All versions.
   - Versions older than 1 month.
   - Versions older than 1 week.

   The program shows how much space will be freed up.

Clean up your Storage by clearing version history
Used (4.34 GB)
Will be cleared (234.15 MB)
Free (245.66 GB)
How many versions would you like to remove from the history:
All versions
234.15 MB
Versions older than 1 month
234.15 MB
Versions older than 1 week
234.15 MB
Advanced cleanup
Clean up now!
Cancel

Be careful! Deleted versions cannot be restored.

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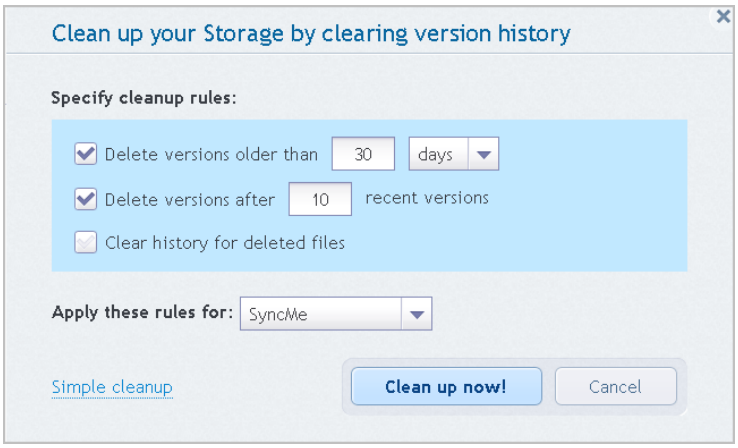
4. Clicking **Advanced cleanup** allows you to select more cleanup rules.



You can apply the cleanup rules for:

- individual syncs and online backups
- all syncs and online backups you have on Acronis Cloud

5. Choose the desired rules and click **Clean up now!.**

One more way to clean up is to delete a sync or online backup which you no longer need. In this case, all version history for the sync or online backup is deleted from Acronis Cloud.

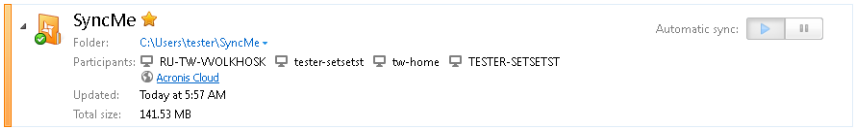
5.11 How to recover a deleted file

Sometimes you may delete a file from a sync by mistake. Then, you need to recover the deleted file. This may be possible for the syncs that keep file versions on Acronis Cloud.

One condition - the deleted file must not be removed during Cloud clean-up.

To recover a deleted file:

1. Start True Image 2013.
2. Click the **Acronis Cloud** link on the box of the default sync.



3. Click the **Files** tab and then select the sync from which you deleted the file.
4. After you select the sync, a list of files and folders appears.

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5. Select the **Show deleted** check box and then select the deleted file you want to recover.

6. Click the **Recover** button to recover the deleted file to its folder.

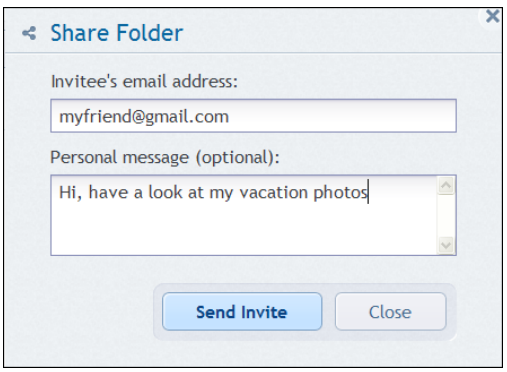
5.12 How to share folders

You can share a folder with any person whose e-mail address you know. To get access to the shared folder, this person does not need an Acronis account.

Sharing a folder is done on Acronis Cloud.

1. Start True Image 2013.
2. Click the **Acronis Cloud** link on the box of the default sync.

3. Click the **Files** tab and then select the sync or online backup containing the folder you want to share.
4. Select the required folder in the list and then click the gear icon at the right-hand side. Select **Share folder** in the opened menu.
5. Type the e-mail address of the person with whom you want to share a folder, and optionally type a message to the invited person.



6. Click **Send invite** to send the invitation e-mail message.

To share your files and folders with unlimited number of people, you can use public links. For example, you can create a public link to your file and publish it on a forum. Anyone on the forum will be able to download or view the file.

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By creating a public link, you can share any folder in your system irrespective of whether it participates in a sync or not. Please note that all files and folders you share with other people use your quota of space on Acronis Cloud. For more information see How to create public links to files and folders (p. 123).

5.13 How to create public links to files and folders

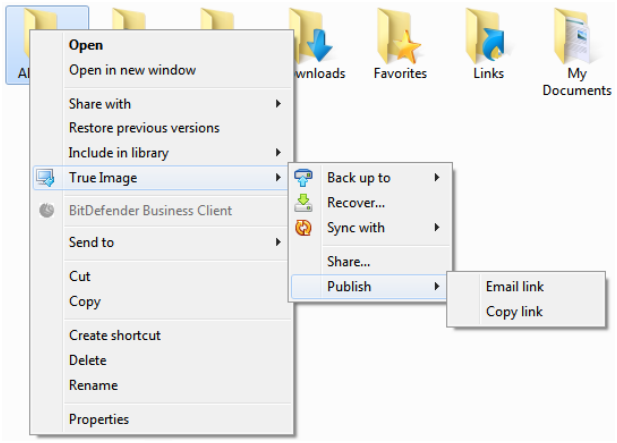
You can create public links to files and folders on your PC as well as in the Acronis Web application. Let's see how this is done on a computer with installed True Image 2013.

You don't have to start the program itself. You can create public links through the Acronis shortcut menu in Windows Explorer. What is more, you can create public links to any file or folder and not only to those which are included in syncs.

If you create a public link to a file for which you do not store versions on Acronis Cloud, this file is uploaded to the storage into the default sync.

To create a public link to a folder:

1. In Windows Explorer, find a folder to which you want to create a public link.



2. Right-click the folder, point to **True Image** -> **Publish** and then select one of the following:
   - **Email link** - select this item if you want to send the created link in an email message.
   - **Copy link** - select this item if you want to copy the link into the Clipboard, for example, to paste it on a forum. This item is available for all files and folders.

Public links to files you keep on Acronis Cloud always lead to the latest versions.

5.14 How to unlink a device from your account

Sometimes you may need to unlink one of your computers or mobile devices from your account. For example, when a computer fails or gets stolen.

To unlink a device:

Go to yourAcronis account page at http://www.acronis.com/my/index.html.

1. Log in to your account.

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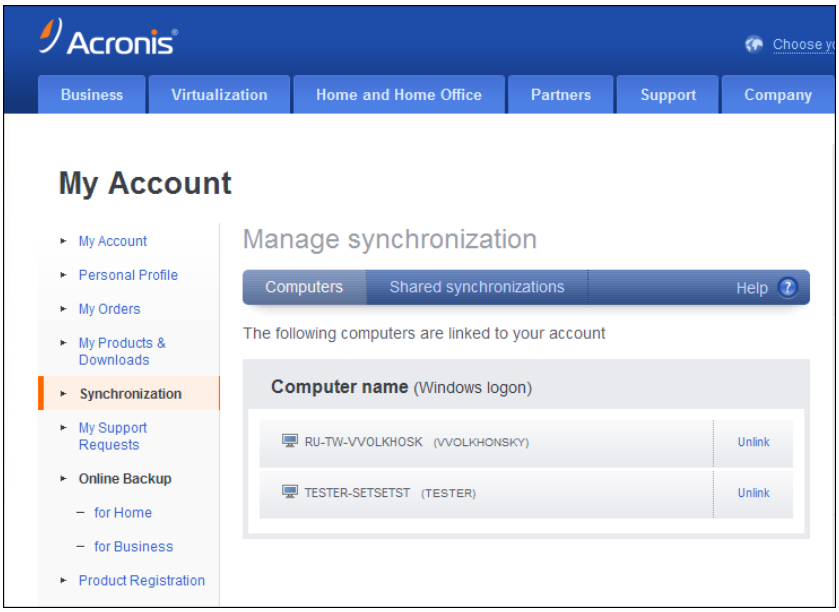
2. Click **Synchronization** in the left-hand side of the screen. The **Computers** tab in the Manage synchronization area is displayed by default.



3. Click **Unlink** to the right of the name of the computer you want to unlink.
4. Click **OK** in the confirmation message.

Unlinking the computer:

- Removes it from the Computers list.
- Removes it from all syncs in which the computer participates.
- Blocks the sync participant certificate.

5.15 How to revoke an invitation to share a sync

You can revoke an invitation to share a sync you sent to another person. This can be done anytime. Revoking does not depend on whether the person already accepted the invitation or not.

This operation is performed on Acronis Web site.

1. Go to your Acronis account page at http://www.acronis.com/my/index.html.
2. Log in to your account.
3. Click **Synchronization** in the left-hand side of the screen.
4. Click the **Shared synchronizations** tab in the Manage synchronization area.

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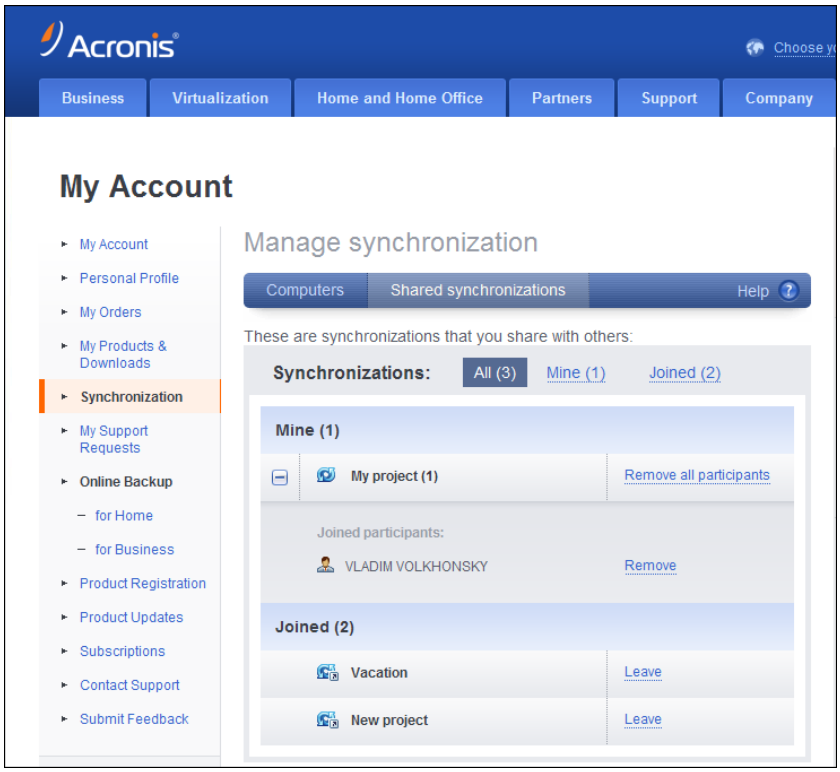
5. Click under the **Mine** heading the "+" icon next to the synchronization from which you want to remove a participant. This opens the list of the persons you invited to the sync.



6. Click **Remove** to the right of the name of the participant you want to remove.

   *If you invited several users, you can revoke all invitations at once by clicking **Remove all participants**.*

7. Click **OK** in the confirmation message.

5.16 How to leave a sync

You may leave a sync either by your own decision or when the sync owner revokes the invitation to the sync. If the owner revokes the invitation, synchronization stops and the sync box is removed from the sync lists on the Web and in the True Image 2013 main window.

If you do not want to participate in a sync anymore, you can simply unsync the corresponding folder. In this case, you will be able to resume synchronization later.

To leave the sync once and for all:

1. Go to your Acronis account page at http://www.acronis.com/my/index.html
2. Log in to your account.
3. Click **Synchronization** in the left-hand side of the screen.

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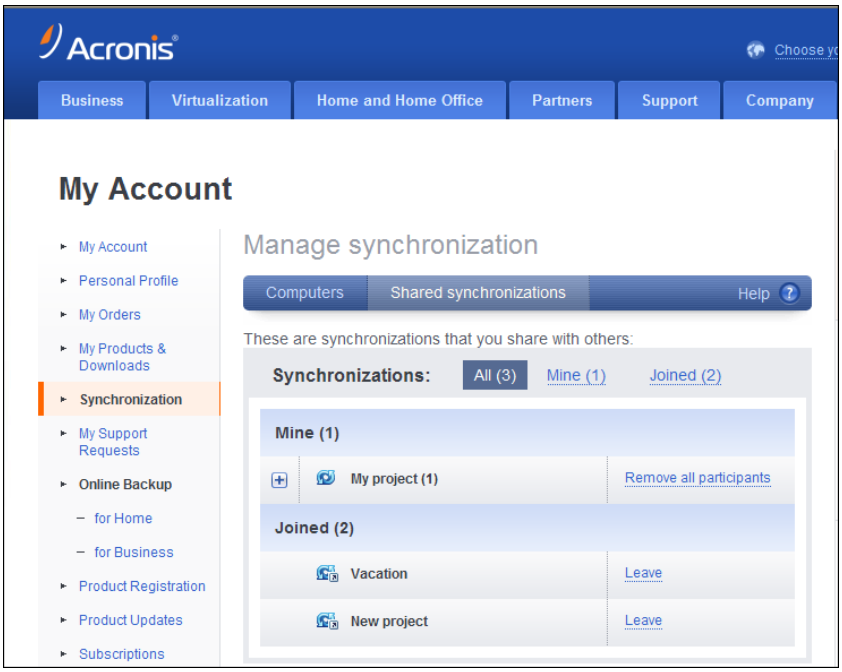
4. Click the **Shared synchronizations** tab in the Manage synchronization area.



5. Select under the **Joined** heading the synchronization you want to leave and click **Leave** to the right of the sync name.
6. Click **OK** in the confirmation message.

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6 Using online backup

In this section

What is Acronis Cloud? 127
Subscription information 127
Backing up to Acronis Cloud 128
Managing online backups 129
Online backup options 130
Recovery from Acronis Cloud....135
Removing data from Acronis Cloud 137

6.1 What is Acronis Cloud?

On the one hand, Acronis Cloud is a remote storage which you may use for storing your data. All you need for using this storage is an Acronis account.

You can save important files to a secure remote location and recover them when the need arises. Because files are stored on a remote storage, they are protected even if your computer gets stolen or your house burns down. So the risk of data loss as a result of fire, theft, or other natural disasters is practically eliminated. If something happens to your backup image, PC, or external storage device, you can get your most important files back. If your computer crashes, you can recover your files back to your PC or another system that has True Image 2013 installed on it.

On the other hand, Acronis Cloud is a Web application that allows you to recover and manage the data you store on Acronis Cloud. You can use any computer with a Web browser without the necessity of installing True Image 2013 or other Acronis application that operates with Acronis Cloud.

Simply go to the Acronis Web site using this link https://www.acronis.com/my/online-backup/ and log in to your account. When your subscription information page opens, click **Recover my data now**. After the Acronis Cloud page opens, select the backup or sync that contains the files you need to recover and then download the files to your current computer.

You can save documents, photos, music, and more from up to five PCs on one account. If a computer crashes, no problem... Just log in from another computer and retrieve your files.

6.2 Subscription information

Performing backups to Acronis Cloud requires subscription to the Acronis Cloud service. To subscribe, start True Image 2013 and click the **Create account** link on the login window. This will open your Web browser and take you to the main Acronis Web site to continue registration.

Fill in the appropriate fields, and the account will be created for you. Provide your first and last names and e-mail address. You will be offered a country selected on the basis of the IP address of your computer, though you can select another country, if you wish.

Then provide a password for your new account and confirm the password by retyping it once more in the appropriate field. When you have performed all actions necessary for account registration, please wait for an e-mail message that will confirm opening of the account.

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To keep your personal data secure, choose a strong password for your online backups, guard it from getting into the wrong hands, and change it from time to time.

After opening an Acronis account, log in to your account page, subscribe to the Acronis Cloud service, and then wait for an e-mail message describing the details of your subscription plan and expiration date.

Trial subscription

If you would like first to try the Acronis Cloud service, Acronis offers a 30-days free trial subscription to Acronis Cloud service. You will have 250 GB of storage space for the trial period. Be aware that after the trial period is over, you won't be able to use the Acronis Cloud service and all your data on the Cloud will be deleted.

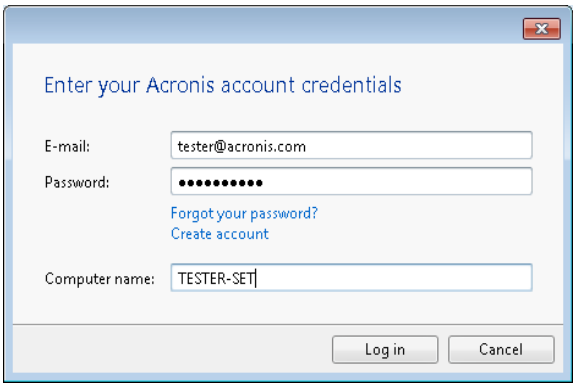
If you like Acronis Cloud service, you can go to https://www.acronis.com/my/online-backup/ and select a suitable subscription plan. To change your tariff, renew the subscription, or unsubscribe, go to the same subscription Web page.

6.3 Backing up to Acronis Cloud

You can have only one active online backup on the current computer. Let's consider how to configure an online backup if you have not used Acronis Cloud yet.

To create an online backup:

1. Click **Online Backup** on the **Backup and recovery** tab of the Home window.
2. Enter the E-mail address and password of your Acronis account in the login window, and then click **Log In**.



If you have already logged in to your account, for example, in order to use the Sync feature, this window will be skipped.

If you:

- Have forgotten your password, click **Forgot your password?** and follow the instructions on the opened Web page. A new password will be sent to you by e-mail.
- Do not have an Acronis account, click **Create account** and then fill in the appropriate fields on the opened Web page to create your account. See details in Subscription information (p. 127).

*To use Acronis Cloud, you must have a subscription to the Acronis Cloud service. If you do not have a subscription, a trial 1-month subscription with 250 GB of storage space will be automatically provided.**

** The trial period and the amount of storage space may be changed without prior notification.*

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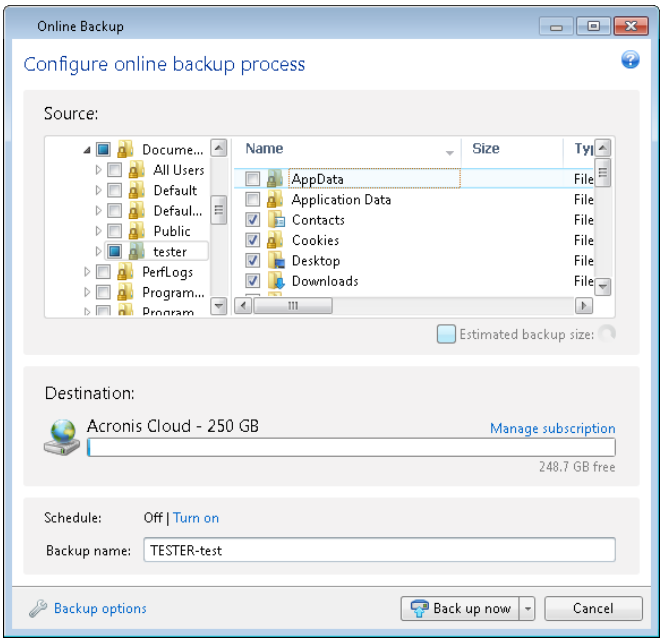
3. Logging in opens a window, where you can configure online backup settings.



4. Specify items to include by selecting the corresponding check boxes. You can include both file categories and individual files and folders. For more information on categories see Data categories (p. 45). If you do not want to keep the custom contents of the current backup by creating a data category, simply select the files and folders.
5. You can exclude from online backups hidden or system files, folders and files matching the criteria you specify For more information see Excluding items from backup (p. 73).
6. The destination for the backup will be Acronis Cloud. The destination field shows your quota of the storage space on Acronis Cloud and the approximate amount of data to be backed up.
7. To set an online backup schedule, click the **Turn on** link next to **Schedule**. For more information on scheduling your online backup see Scheduling (p. 157). To run the backup on the schedule, click the down arrow to the right of the **Back up now** button and select **Later** in the drop down list. The backup with the settings you have made will run according to the schedule.

   The backup will run even after you log off Acronis Cloud.

8. Click the **Back up now** button if you want to run backup immediately. You can also delay the backup start for up to six hours by clicking the down arrow to the right of this button and selecting a delay interval from the dropdown list.

The first online backup may take a considerable amount of time to complete. Further backup processes will likely be much faster, because only changes to files will be transferred over the Internet.

6.4 Managing online backups

You can have up to five online backups from up to five different computers, but only one online backup can be active at the same time.

When you log in to your Acronis account, True Image 2013 tries to find out whether you already have online backups.

If you already have online backups created under your account, for example, performed on another computer, the program operates as follows. It adds the existing online backups to the **Backup and**

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recovery tab and displays at the bottom of the screen a notification about the online backups it has found.

You can select any one of the existing online backups and then make it active by clicking the **Continue backup here** button. It does not matter from which computer you backed up data using this backup earlier. The backed up data remains available for recovery and you can back up more data from the current computer.

If you want to create a new online backup, click **Online Backup** on the **Backup and recovery** tab.

When you have backed up data to Acronis Cloud from the current computer, the **Online Backup** item on the toolbar changes to **Edit Online Backup settings**. This is because you can have only one active online backup at a time. Online backups from other computers will only provide recovery of the backed up data. In addition, you can delete such online backups.

If you have five online backups, True Image 2013 will display a dialog stating that you already have the maximum allowable number of online backups. You can either activate one of them and edit its settings for your new computer or delete an existing online backup and create a new one.

6.5 Online backup options

The following options are available for online backup:

- Acronis Cloud connection attempts (p. 130)
- Acronis Cloud cleanup (p. 131)
- Encryption key (p. 132)
- Windows account (p. 132)
- Operation priority (p. 133)
- Network connection speed limit (p. 133)
- Notifications (p. 134)
- Exclusions (p. 135)

If you want to reset all the modified options to their initial values that were set after the product installation, click the **Reset to initial settings** button.

6.5.1 Acronis Cloud connection attempts

You can specify the number of connection attempts and the time interval between the attempts.

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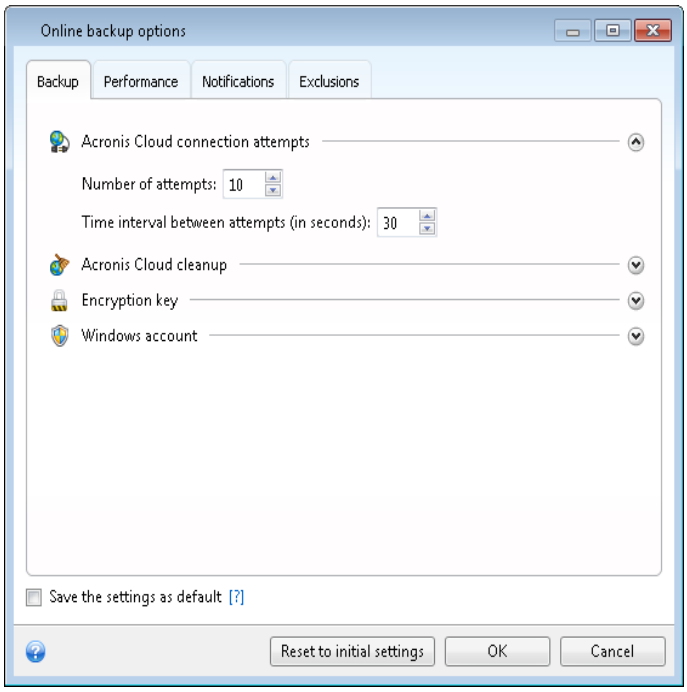
In case of any network problems, if the first connection attempt fails, the program will repeat the attempts until a connection is successfully established. You can set the number of connection attempts and the time interval between the attempts in seconds. To do so, type or select the values in the appropriate boxes.



6.5.2 Acronis Cloud cleanup

You can configure the cleanup settings for Acronis Cloud to optimize usage of its space.

To set the limits for the amount of versions on Acronis Cloud:

- Select the **Delete versions that are older than** check box and enter a value that limits the maximum age of the older versions. All other versions will be automatically deleted except the most recent versions.

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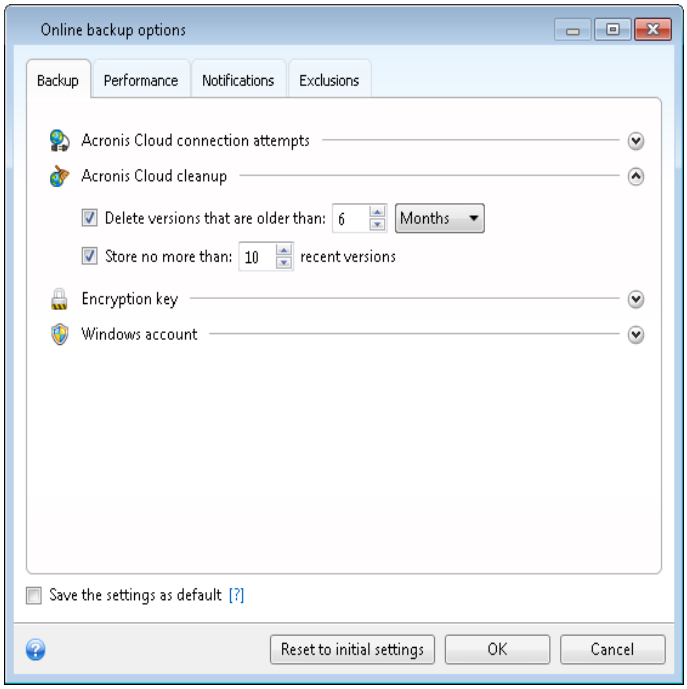
- Select the **Store no more than … recent versions** check box and enter a value that limits the maximum number of all versions in the storage.



6.5.3 Encryption key

To protect your data on Acronis Cloud from unauthorized access, you can use encryption. In this case your data will be stored on Acronis Cloud in encrypted form. To encrypt and decrypt your data, the program needs the encryption key, that you should specify when you register your computer. An encryption key is a unique alphanumeric code, like a password. You can specify any set of characters you like. Note that the key is case-sensitive.

An encryption key cannot be retrieved. Please memorize the key that you specify during your computer registration.

While attempting to access the encrypted data, the program asks you to enter the encryption key.

6.5.4 Windows account for Online backup

By default True Image 2013 backs up data of the current user. You can specify another Windows account. The program will back up only the data related to the specified account. For more information see Windows account (p. 71).

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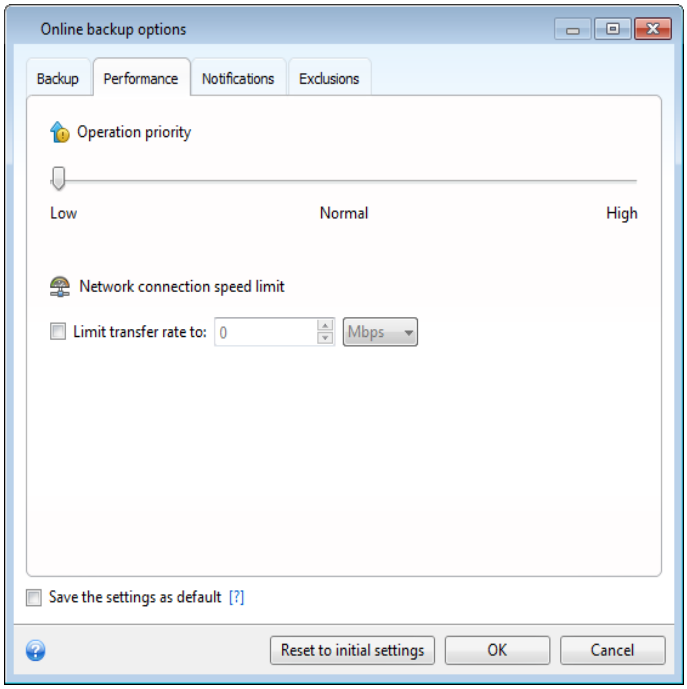
6.5.5 Operation priority

Changing the priority of an operation process can make it run faster or slower (depending on whether you raise or lower the priority), but it can also adversely affect the performance of other running programs. The priority of any process running in a system determines the amount of CPU usage and system resources allocated to that process. Decreasing the operation priority will free up more resources for other CPU tasks. Increasing operation priority may speed up the backup process by taking resources from the other currently running processes. The effect will depend on total CPU usage and other factors.



You can set up the backup process priority:

- **Low** (enabled by default) - the backup process will run slower, but the performance of other programs will be increased
- **Normal** - the backup process will have equal priority with other processes
- **High** - the backup process will run faster, but the performance of other programs will be reduced. Be aware that selecting this option may result in 100% CPU usage by True Image 2013

6.5.6 Network connection speed limit

You can reduce the influence of Acronis Cloud connection on other network connections of your computer. Set the connection speed that will allow you to send e-mail or surf the Web without annoying slowdowns while online backup is running. To do so:

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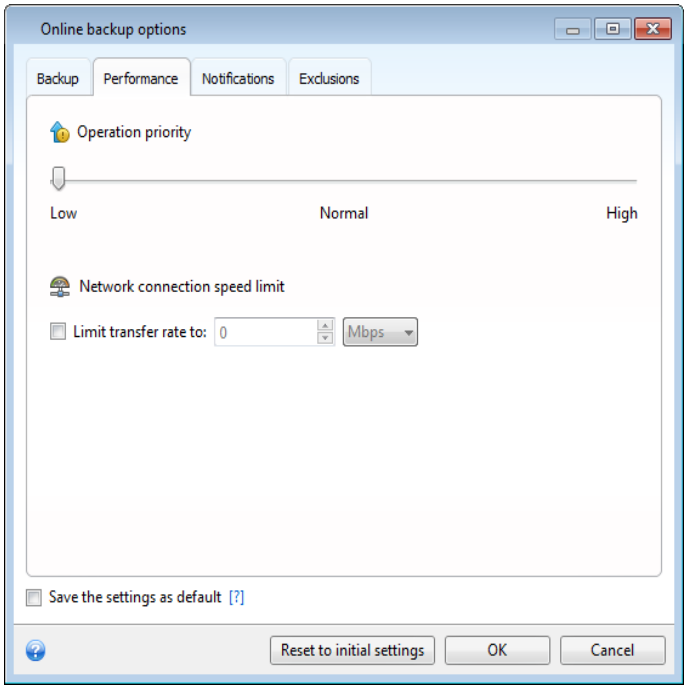
- Select the **Limit transfer rate to** check box and specify an optimal value and an appropriate measurement unit (kilobits or megabits per second)



6.5.7 Notifications

You can specify an e-mail account that will be used for notification of the backup process.

To specify the e-mail settings:

- Enter the e-mail address in the **E-mail address** field. You can enter several e-mail addresses in a semicolon-delimited format.
- Enter the outgoing mail server (SMTP) in the **Outgoing mail server (SMTP)** field.
- Set the port of the outgoing mail server. By default the port is set to 25.
- Enter the user name in the **User name** field.

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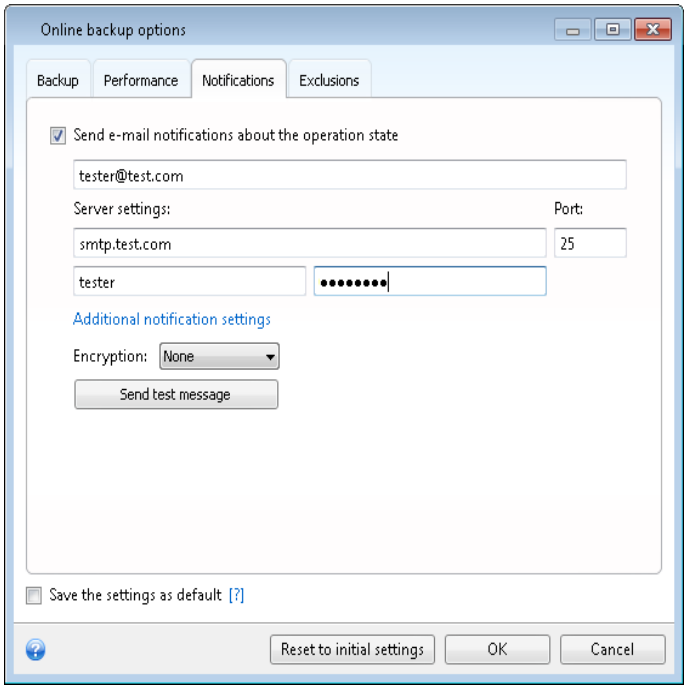
- Enter the password in the **Password** field.



To specify additional notification settings, click the **Additional notification settings** link.

- To send notification concerning process completion, select the **Send notification upon operation's successful completion** check box.
- To send notification concerning process failure, select the **Send notification upon operation failure** check box.
- To send notification with operation messages, select the **Send notification when user interaction is required** check box.
- To send notification with full log of operations, select the **Add full log to the notification** check box.

After making the additional settings, click **OK** to return to the previous window.

- If you would like to use encryption, select the required encryption protocol from the dropdown list in the **Encryption** field.

To check whether your settings are correct, click the **Send test message** button.

6.5.8 Exclusions

You can exclude from online backup hidden or system files and folders, as well as files matching the criteria you specify. For more information see Excluding items from backup (p. 73).

6.6 Recovery from Acronis Cloud

6.6.1 Recovering data from online backups

With True Image 2013 you can browse and recover data that was backed up on Acronis Cloud. If you have backed up data from several computers, select the online backup box for the computer from which you backed up the data you want to recover.

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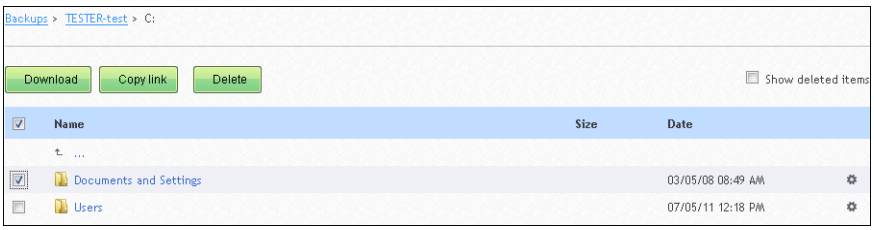
1. Click the **Recover** button on the box of the online backup from which you want to recover data. You will be taken to Acronis Cloud Web site.

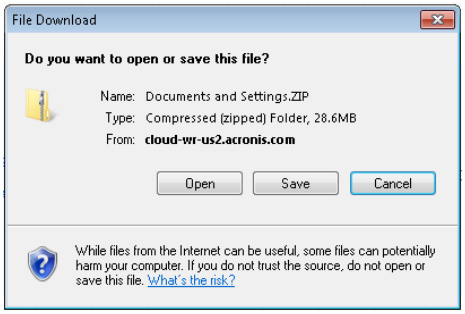
   If the data from the selected computer is stored on the Cloud in encrypted form, you will be asked to enter the encryption key which has been used for encryption. You will not be able to access the data until you enter the correct encryption key.

2. After the **Files** tab on the Acronis Cloud Web site opens, select the required online backup in the **Backups** area.
3. Select the files and folders you want to recover. Click the **Download** button to start recovery.



   If you selected several files and folders, they will be placed into a zip archive.

4. After the **File Download** window opens, click **Save** to start download.


File Download
Do you want to open or save this file?
Name: Documents and Settings.ZIP
Type: Compressed (zipped) Folder, 28.6MB
From: cloud-wr-us2.acronis.com
Open
Save
Cancel
While files from the Internet can be useful, some files can potentially harm your computer. If you do not trust the source, do not open or save this file. What's the risk?

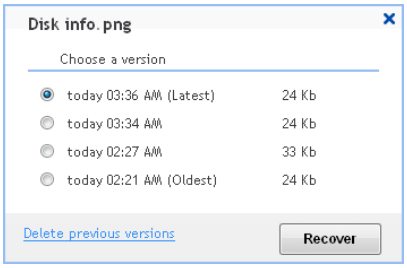
5. By default the data will be downloaded to the **Downloads** folder. You may change the download path.
6. After the download finishes, you may click **Open folder** to open the **Downloads** folder.

6.6.2 Selecting a version to recover

By default True Image 2013 selects the latest versions with respect to the date you specified. However, for any file you can select a specific version of the file to recover.

To recover a specific file version:

1. In the backup contents, select the file which version you want to recover, then click the gear icon at the right-hand side. Select **View versions** in the opened menu.
2. In the window that appears, select the required version and then click **Recover**.



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3. Select the version to which you want to rollback. The version's exact date and time will be displayed. Your current version will be reverted to the state it was at that point in time.
4. Click **Recover** to proceed. The selected version will become the latest version on Acronis Cloud.
5. After the process finishes, refresh the **Files** page in your Web browser.
6. Select the file once more and then click **Download** to download the selected version to your Downloads folder.

6.7 Removing data from Acronis Cloud

Because the available space on Acronis Cloud is limited, you need to manage your Cloud space by cleaning up the obsolete data or the data you do not need anymore. Cleanup can be done in a variety of ways. The most "drastic" one is deleting the entire backup from a computer on Acronis Cloud. To remove the backup, click the gear icon in the box of the online backup to open the Operations menu and select **Delete**; then, click **Yes** in the confirmation window.

The Online backup options provide for automatic cleanup of Acronis Cloud. You can specify deletion of files that have been kept longer than the specified number of months or days. In addition, you can set the maximum number of file versions to be kept on Acronis Cloud. You can accept the default settings for those options or set the values you need. For more information see Acronis Cloud cleanup (p. 131).

You can also manage Acronis Cloud by deleting individual files and folders.

1. Click the gear icon on the box of the online backup from which you want to delete data and select **Open Web application**.
2. After the **Files** tab on the Acronis Cloud Web site opens, select the required online backup in the **Backups** area.
3. Select files and folders you want to delete by selecting their check boxes. Having finished selection, click the **Delete** button.

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7 Useful information

In this section

Protecting your system 138
Deciding where to store your backups 140
Making sure that your rescue media can be used when needed 142
Testing that your backups can be used for recovery 146
Migrating your system from an HDD to an SSD 146
Trying system changes safely 151
Scheduling 157
Searching backups and their content 160
Choosing columns for viewing in wizards 166
Backup information 166
Timeout settings 166

7.1 Protecting your system

To protect your system, please take the necessary precautionary measures:

1) To protect your system from a disaster, you need to make a full backup of your system. We strongly advice you to create a system backup as soon as possible.

2) Whenever possible, you should store your system backup on a hard drive other than your primary disk C:, preferably on an external one. This gives an additional guarantee that you will be able to recover your system if your primary hard disk drive fails.

3) Because recovery of your system after a failure in most cases will be done after booting from the rescue media, you **must** create the rescue media (see Creating bootable rescue media (p. 169)) and then test it as described in Making sure that your rescue media can be used when needed.

4) It is recommended to scan your system partition for viruses before backing it up.

Backing up your system partition

If you want to use your external drive for storing the backup, attach and power it on before starting True Image 2013.

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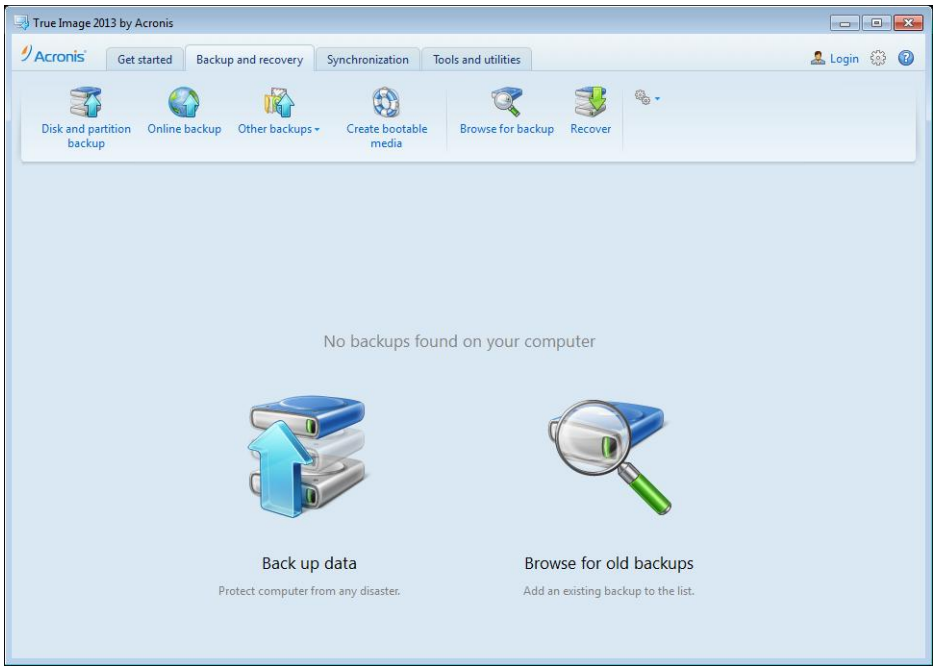
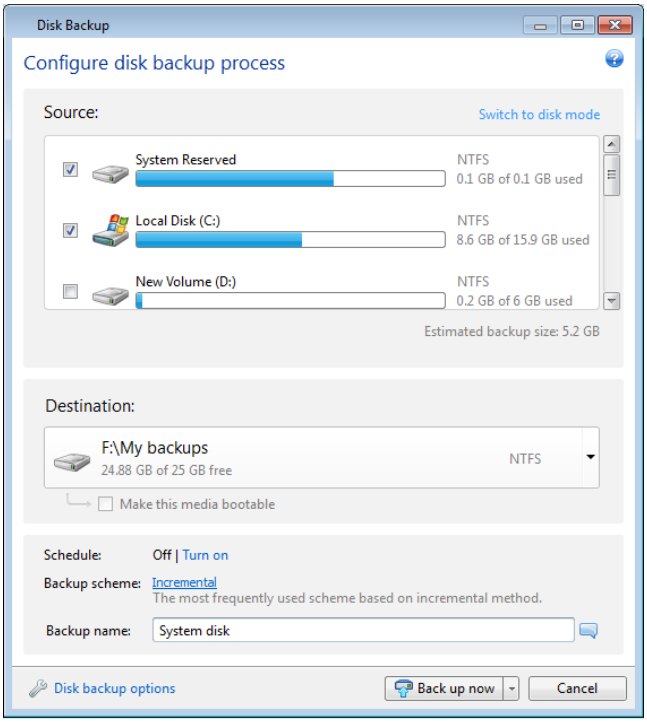
1. Start True Image 2013, select the **Backup and recovery** tab and then click **Disk and partition backup**.



2. This opens the **Disk Backup** window with your system partition (usually C:) selected by default.



3. Select a destination for backup (you can leave the default destination or browse for a destination after clicking the down arrow to the right of the current destination and selecting **Browse...**).
4. Click **Back up now**.

Additional recommendations

Many IT professionals recommend that you have at least two copies of your system backup (three are even better). It is further recommended to keep one copy of a backup in a different location from

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the other (preferably on other premises – for example, at work or at a friend's home, if you use the backed up computer at home).

One more argument in favor of several backups: when starting recovery, True Image 2013 deletes the target partition (or disk). If you have just a single backup, you are at great risk. The moment the system partition is deleted on the computer being recovered the only thing you have is the image being recovered. If the image is corrupted, you will not be able to recover the system.

7.2 Deciding where to store your backups

True Image 2013 supports quite a few of storage devices. For more information see Supported storage media. Some of the supported storage locations are discussed below.

Hard disk drives

Since hard disk drives are now quite inexpensive, in most cases purchasing an external hard drive for storing your backups will be an optimal solution. An external drive enhances the security of your data because you can keep it off-site (for example, at home if you back up your office computer and vice versa). You can choose various interfaces – USB, FireWire, eSATA depending on the configuration of your computer ports and the required data transfer rate. In many cases the best choice will be an external USB hard drive, especially if your computer supports USB 3.0.

If you plan to use an external USB hard drive with your desktop PC, connecting the drive to a rear connector using a short cable will usually provide the most reliable operation. This reduces the chance of data transfer errors during backup/recovery.

Home file server, NAS or NDAS

If you have a Gigabit Ethernet home network and a dedicated file server or NAS, you can store backups on the file server or NAS practically like on an internal drive.

If you decide to use an external hard drive, NAS, NDAS, etc., you will need to check whether True Image 2013 detects the selected backup storage. You need to check this both in Windows and when booted from the rescue media.

To gain access to an NDAS enabled storage device, in many cases you will need to specify the NDAS device ID (20 characters) and the write key (5 characters). The write key allows you to use an NDAS enabled device in write mode (for example, for saving your backups). Usually the device ID and write key are printed on a sticker attached to the bottom of the NDAS device or on the inside of its enclosure. If there is no sticker, you need to contact your NDAS device vendor to obtain that information.

The certain NAS devices can be detected by True Image 2013 only if Bonjour software is installed.

Optical discs

Blank optical discs such as DVD-R, DVD+R are very cheap, so they will be the lowest cost solution for backing up your data, though the slowest one. This is especially true when backing up directly to DVDs. Furthermore, if your backup consists of several DVDs, data recovery from DVDs will require a lot of disc swapping. On the other hand, using Blu-ray discs may be a viable option.

Due to the necessity of swapping discs, we strongly recommend to avoid backing up to DVDs if the number of discs is more than three. When there is no alternative to backing up to DVDs, we recommend to copy all DVDs to a folder on a hard disk and then to recover from that folder.

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Online backup

True Image 2013 allows you to use the Acronis Cloud service for safeguarding your most important files by saving them to a secure remote location. Because files are stored on a remote storage, they are protected even if your computer gets stolen. So the risk of data loss as a result of fire, theft, or other natural disasters is practically eliminated. If something happens to your backup image, PC, or external storage device, you can get your most important files back.

7.2.1 FTP connection

True Image 2013 allows you to store your backups on FTP servers.

To create a new FTP connection, when selecting a backup storage click **New FTP connection**, and in the opened window provide:

- Path to the FTP server, for example: *my.server.com*
- Port
- User name
- Password

To check your settings, click the **Test connection** button. The computer will try to connect to the specified FTP server. If the test connection has been established, click the **Connect** button to add the FTP connection.

The created FTP connection will appear in the folder tree. Select the connection and browse for the backup storage that you want to use.

Please, be aware that the mere opening of an FTP server's root folder does not bring you to your home directory.

For data to be recovered directly from an FTP server, the backup must consist of files no greater than 2GB each.

Because of this, True Image 2013 splits a backup into files with a size of 2GB when backing up directly to an FTP server. If you back up to a hard disk with the aim of transferring the backup to an FTP later, you may split the backup into files of 2GB each by setting the desired file size in the backup options.

An FTP server must allow passive mode file transfers.

*The firewall settings of the source computer should have Ports 20 and 21 opened for the TPC and UDP protocols to function. The **Routing and Remote Access** Windows service should be disabled.*

7.2.2 Authentication settings

If you are connecting to a networked computer, in most cases you will need to provide the necessary credentials for accessing the network share. For example, this is possible when you select a backup storage in the **Browse for destination** window. The **Authentication Settings** window appears automatically when you click a networked computer name. To open it manually, click **Specify credentials for this locations** on the toolbar.

If you need to specify the user name and password:

- **User name** - enter a user name
- **Password** - enter the user's password

When you click the **Test connection** button, the computer will try to connect to the selected network share. If you receive an error message, check if the credentials are correct and provide the correct

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user name and password for the selected network share. To repeat the connection attempt, click the **Test again** button.

Having provided the required information, click **Connect**.

7.3 Making sure that your rescue media can be used when needed

To maximize the chances of your computer's recovery, you must test that your computer can boot from the rescue media. In addition, you must check that the rescue media recognizes all your computer's devices, such as the hard drives, the mouse, the keyboard and network adapter.

If you purchased a boxed version of the product that has a bootable CD, please test this CD.

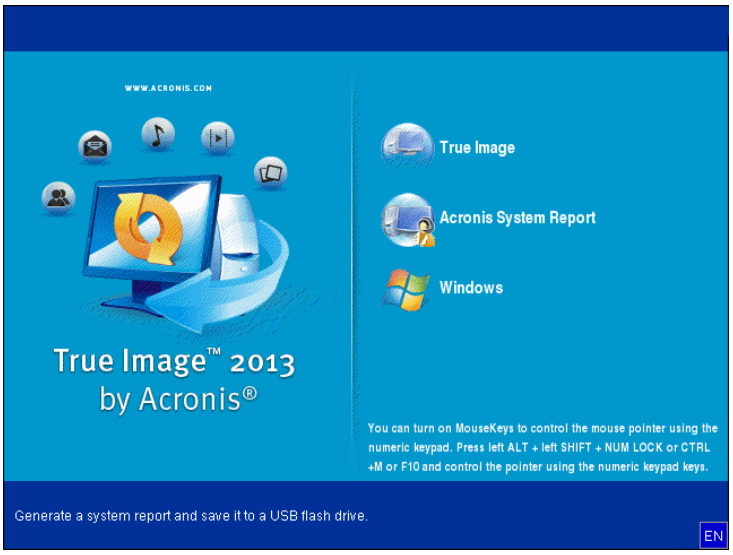
To test the rescue media

If you use external drives for storing your backups, you must attach the drives before booting from the rescue CD. Otherwise, the program might not detect them.

1. Configure your computer to enable booting from the rescue media. Then, make your rescue media device (CD-ROM/DVD-ROM drive or USB stick) the first boot device. See Arranging boot order in BIOS.
2. If you have a rescue CD, press any key to start booting from the CD, when you see the prompt "Press any key to boot from CD". If you do not press a key within five seconds, you will need to restart the computer.
3. After the boot menu appears, choose **True Image**.

   If your wireless mouse does not work, try to replace it with a wired one. The same recommendation applies to the keyboard.

   If you do not have a spare mouse or keyboard, contact Acronis Support. They will build a custom rescue CD that will have drivers for your models of the mouse and keyboard. Please be aware that finding the appropriate drivers and making the custom rescue CD may take some time. Furthermore, this may be impossible for some models.


WWW.ACRONIS.COM
True Image
Acronis System Report
Windows
True Image™ 2013
by Acronis®
You can turn on MouseKeys to control the mouse pointer using the numeric keypad. Press left ALT + left SHIFT + NUM LOCK or CTRL +M or F10 and control the pointer using the numeric keypad keys.
Generate a system report and save it to a USB flash drive.
EN

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4. When the program starts, we recommend you try recovering some files from your backup. A test recovery allows you to make sure that your rescue CD can be used for recovery. In addition, you will check that the program detects all the hard drives you have in your system.

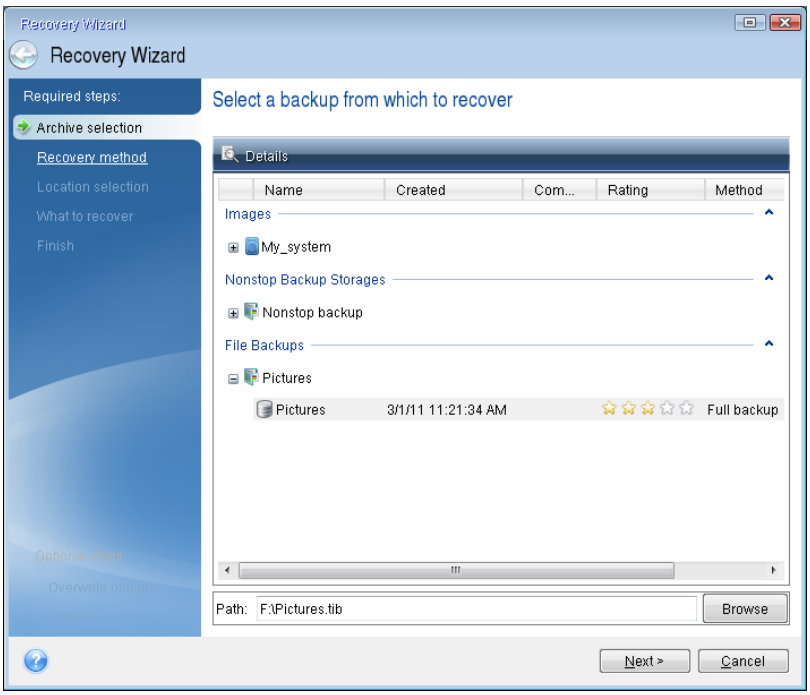
If you have a spare hard drive, we strongly recommend you to try a test recovery of your system partition to this hard drive.

How to test recovery, as well as check the drives and network adapter

1. If you have file backups, start Recovery Wizard by clicking **Recovery** -> **File Recovery** on the toolbar.

*If you have only disk and partition backup, Recovery Wizard also starts and the recovery procedure is similar. In such a case, you need to select **Recover chosen files and folders** at the **Recovery Method** step.*

2. Select a backup at the **Archive location** step and then click **Next**.



3. When recovering files with the rescue CD you are able to select only a new location for the files to be recovered. Therefore just click **Next** at the **Location selection** step.
4. After the **Destination** window opens, check that all your drives are shown under **My Computer**.

If you store your backups on the network, you should also check that you can access the network.

*If no computers are visible on the network, but the **Computers Near Me** icon is found under **My Computer**, specify network settings manually. To do this, open the window available at **Tools & Utilities** → **Options** → **Network adapters**.*

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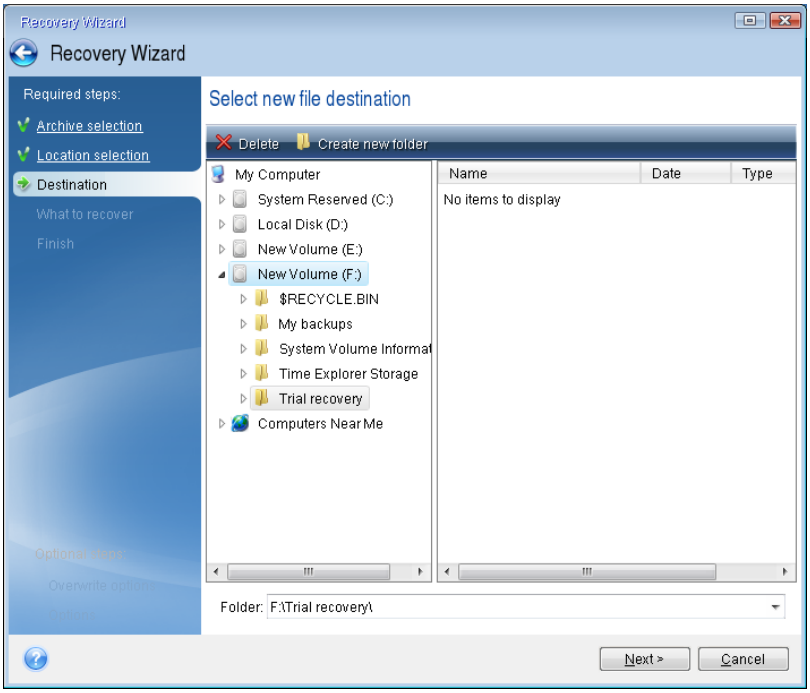
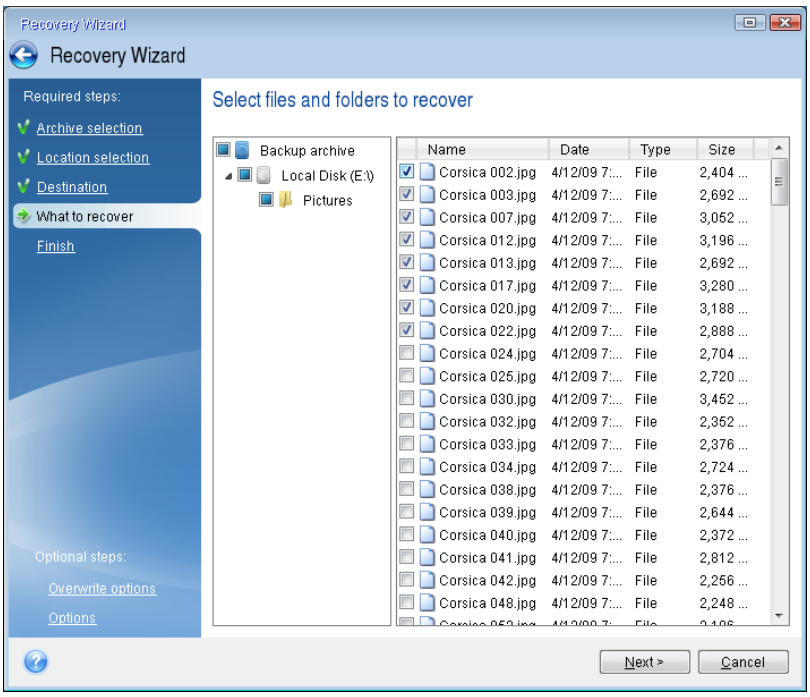
*If the **Computers Near Me** icon is not available under **My Computer**, there may be problems either with your network card or with the card driver provided with True Image 2013.*



5. Select the destination for the files and then click Next.
6. Select several files for recovery by selecting their check boxes and then click **Next**.


Recovery Wizard
Recovery Wizard
Required steps:
Archive selection
Location selection
Destination
What to recover
Finish
Optional steps:
Overwrite options
Options
Select files and folders to recover
Backup archive
Local Disk (E:\)
Pictures
Name
Date
Type
Size
Corsica 002.jpg 4/12/09 7:... File 2,404 ...
Corsica 003.jpg 4/12/09 7:... File 2,692 ...
Corsica 007.jpg 4/12/09 7:... File 3,052 ...
Corsica 012.jpg 4/12/09 7:... File 3,196 ...
Corsica 013.jpg 4/12/09 7:... File 2,692 ...
Corsica 017.jpg 4/12/09 7:... File 3,280 ...
Corsica 020.jpg 4/12/09 7:... File 3,188 ...
Corsica 022.jpg 4/12/09 7:... File 2,888 ...
Corsica 024.jpg 4/12/09 7:... File 2,704 ...
Corsica 025.jpg 4/12/09 7:... File 2,720 ...
Corsica 030.jpg 4/12/09 7:... File 3,452 ...
Corsica 032.jpg 4/12/09 7:... File 2,352 ...
Corsica 033.jpg 4/12/09 7:... File 2,376 ...
Corsica 034.jpg 4/12/09 7:... File 2,724 ...
Corsica 038.jpg 4/12/09 7:... File 2,376 ...
Corsica 039.jpg 4/12/09 7:... File 2,644 ...
Corsica 040.jpg 4/12/09 7:... File 2,372 ...
Corsica 041.jpg 4/12/09 7:... File 2,812 ...
Corsica 042.jpg 4/12/09 7:... File 2,256 ...
Corsica 048.jpg 4/12/09 7:... File 2,248 ...
Next >
Cancel

7. Click **Proceed** on the Summary window to start recovery.
8. After the recovery finishes, exit the standalone True Image 2013.

Now you can be reasonably sure that your rescue CD will help you when needed.

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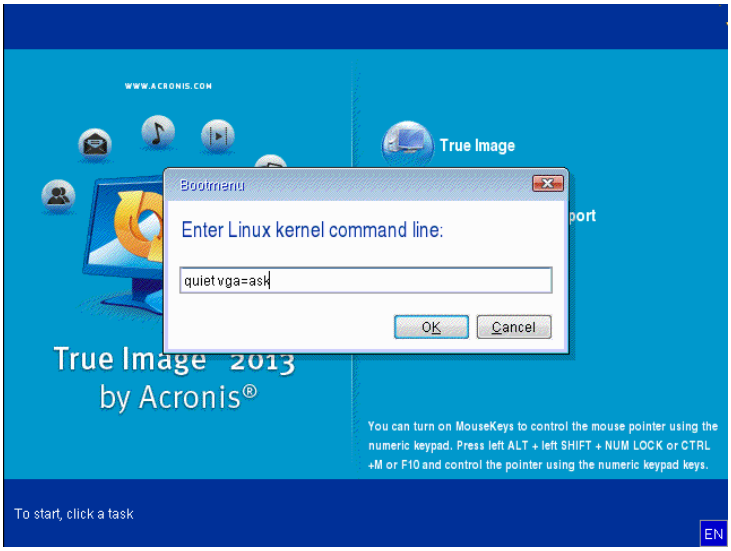
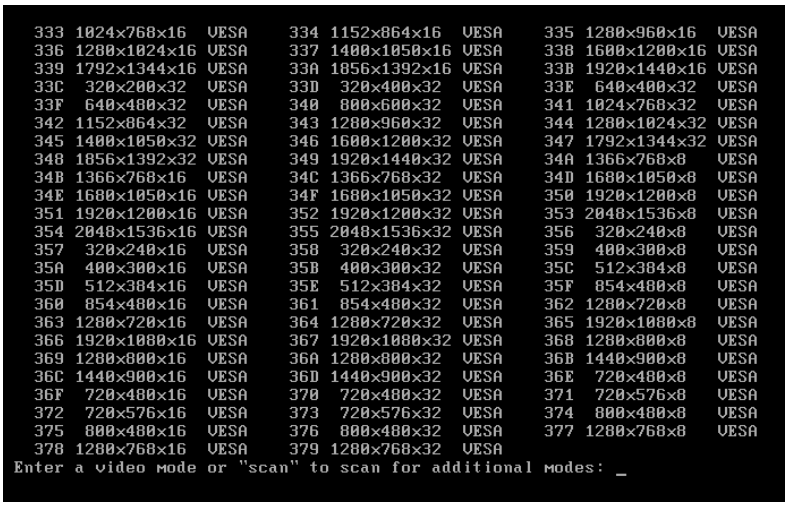
7.3.1 Selecting video mode when booting from the rescue media

When booting from the rescue media the optimal video mode is selected automatically depending on the specifications of your video card and monitor. However, sometimes the program can select the wrong video mode, which is unsuitable for your hardware. In such case you can select a suitable video mode as follows:

1. Start booting from the rescue media. When the boot menu appears, hover the mouse over **True Image** item and press the F11 key.
2. When the command line appears, type "vga=ask" (without quotes) and click **OK**.


WWW.ACRONIS.COM
True Image
Bootmenu
Enter Linux kernel command line:
quiet vga=ask
OK
Cancel
True Image 2013
by Acronis®
You can turn on MouseKeys to control the mouse pointer using the numeric keypad. Press left ALT + left SHIFT + NUM LOCK or CTRL +M or F10 and control the pointer using the numeric keypad keys.
To start, click a task
EN

3. Select **True Image** in the boot menu to continue booting from the rescue media. To see the available video modes, press the Enter key when the appropriate message appears.
4. Choose a video mode you think best suitable for your monitor and type its number in the command line. For instance, typing 338 selects video mode 1600x1200x16 (see the below figure).



5. Wait until True Image 2013 starts and make sure that the quality of the Welcome screen display on your monitor suits you.

To test another video mode, close True Image 2013 and repeat the above procedure.

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After you find the optimal video mode for your hardware, you can create a new bootable rescue media that will automatically select that video mode.

To do this, start Acronis Media Builder, select the required media components, and type the mode number with the "0x" prefix (0x338 in our instance) in the command line at the "Bootable media startup parameters" step, then create the media as usual.

7.4 Testing that your backups can be used for recovery

Here are some recommendations:

1) Even if you start recovery of the active partition in Windows, the program will reboot into the Linux environment after the recovery process starts. This is because Windows cannot be left running during the recovery of its own partition. So you will recover your active partition under the recovery environment in all cases.

If you have a spare hard drive, we strongly recommend you to try a test recovery to this hard drive. It should be done after booting from the rescue media which uses Linux.

If you do not have a spare drive, please, at least validate the image in the recovery environment. A backup that can be read during validation in Windows, **may not always be readable under Linux environment**.

When you use the True Image 2013 rescue media, it creates disk drive letters that might differ from the way Windows identifies drives. For example, the D: disk identified in the standalone True Image 2013 might correspond to the E: disk in Windows. It is advisable to assign unique names (labels) to all partitions on your hard drives. This will make finding the disk containing your backups easier.

2) Users of the Enterprise and Ultimate editions of Windows 7 can test whether they will be able to boot from the recovered system partition. True Image 2013 allows booting from a tib file containing a system partition image. So if you are able to boot from such a backup, you almost certainly will be able to boot after an actual system recovery from that backup.

When you choose a tib file to boot from, True Image 2013 temporarily converts it to a vhd file. Your hard disk must have enough free space for storing it. The program will then add a new item to the Windows boot loader list. When you select the tib file in the boot loader list, your computer will actually boot from that temporary vhd file. After ensuring that the tib file stores a bootable backup, you can remove the file from the boot loader list and delete the temporary vhd file. For more information see Booting from a tib image of your Windows 7 system partition (p. 227).

7.5 Migrating your system from an HDD to an SSD

In this section

Preparing for migration.....147
What to do if True Image 2013 does not recognize your SSD 147
Checking SSD partition alignment.....149
Fixing SSD partition alignment.....149
Migrating to an SSD using the backup and recovery method 150
What to do if your SSD does not have enough space for all HDD content151

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7.5.1 Preparing for migration

Solid state disks have become quite common. Many users decide to replace their system hard disk with an SSD to enhance the disk system performance.

Such a replacement may raise a number of questions. Because SSDs are still somewhat expensive, the size of your new SSD will usually be less than that of your old hard disk. This may cause a problem if your hard disk contains the operating system, programs and data.

Another question concerns the alignment of SSDs. To get the optimum performance from an SSD and to prolong its life, the partition offset must meet certain criteria. For more information see SSD support (p. 14).

We presuppose that before purchasing the SSD you estimated the approximate space occupied by your operating system and applications and that you selected an SSD that has a reasonable reserve capacity.

First of all, make sure that True Image 2013 detects your new SSD both in Windows and under the Acronis rescue media. If there is a problem, see What to do if True Image 2013 does nor recognize your SSD (p. 147).

Let's consider two cases:

1. Your new SSD is big enough to accommodate your old system disk without additional preparations.
2. The occupied space on your old hard disk exceeds the size of your SSD.

In the first case, different options for migrating your system may be available. If your system disk consists of a single partition (not counting the hidden System Reserved partition existing in many installations of Windows 7), you can try to migrate to the SSD using the Clone tool. For more information see Cloning a hard disk (p. 188).

However, we recommend to use the backup and recovery method in most cases. This method provides more flexibility and control over migration. See Migrating to an SSD using the backup and recovery method (p. 150).

In the second case, you will need to free up space on the system disk to make migration possible. See What to do if your SSD does not have enough space for all HDD content (p. 151).

7.5.2 What to do if True Image 2013 does not recognize your SSD

Sometimes True Image 2013 may not recognize an SSD.

In such a case, check whether the SSD is recognized in BIOS.

If the BIOS of your computer does not show the SSD, verify that the power and data cables are properly connected. You may also try to update the BIOS and SATA drivers. If these suggestions do not help, contact the Support of your SSD manufacturer.

If the BIOS of your computer does show the SSD, you can try the following procedure:

For Windows Vista/Windows 7 type **cmd** in the Search field and press **Enter**.

*For Windows XP, type **cmd** in the Run field and press **Enter**.*

At the command line prompt type:

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diskpart

list disk The screen will show the disks connected to your computer. Find out the disk number for your SSD. Use its size as the reference.

select disk N Here N is the disk number of your SSD.

clean This operation removes all information from the SSD and overwrites the MBR with the default one.

exit

exit

Start True Image 2013 and check whether it detects the SSD. If it detects the SSD, use the Add new disk tool to create a single partition on the disk occupying the entire disk space. When creating a partition, check that the free space before partition is 1 MB. For more information, see Adding a new hard disk (p. 196).

The next step is to check whether your Acronis bootable rescue media recognizes the SSD.

1. Boot from the rescue media.
2. Select **Tools & Utilities -> Add New Disk** in the main menu and the **Disk selection** screen will show the information about all hard disks in your system. Use this for checking whether the SSD is detected in the recovery environment.
3. If the screen shows your SSD, just click **Cancel**.

If the rescue media does not recognize the SSD and the SSD controller mode is ACHI, you can try to change the mode to IDE (or ATA in some BIOS brands) and see whether this solves the problem.

Attention! Do not start Windows after changing the mode; it may result in serious system problems. You must return the mode to ACHI before starting Windows.

If after changing the mode the rescue media detects the SSD, you may use the following procedure for recovery or cloning under rescue media:

1. Shut down the computer.
2. Boot to BIOS, change the mode from AHCI to IDE (or ATA in some BIOS brands).
3. Boot from Acronis rescue media.
4. Recover or clone the disk.
5. Boot to BIOS and change IDE back to AHCI.
6. Start Windows.

What to do if the above suggestions do not help

Owners of True Image 2013 Plus Pack can try to create a WinPE-based rescue media. This may provide the necessary drivers. For more information, see Creating WinPE-based rescue media (p. 176).

One more option is to request a custom rescue media from Acronis Support. For more information, see Creating a custom rescue CD (p. 233).

Please be aware that finding the appropriate drivers and making the custom rescue media may take time. Furthermore, finding the appropriate drivers may not be possible in some cases.

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7.5.3 Checking SSD partition alignment

If you installed Windows Vista/Windows 7 from the installation DVD to a new hard disk, the operating system automatically aligns the hard disk during installation to a multiple of 4096 and usually to 1.024 MB. In any case, it will be useful to check.

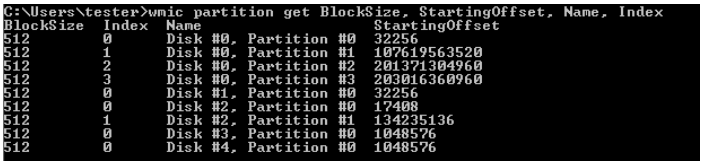
Mount the SSD into the intended location in your computer.

Windows Vista/Windows 7

1. Type **cmd** in the Search field and press **Enter**.
2. At the command line prompt type:

   ```
   wmic partition get BlockSize, Index, Name, StartingOffset
   ```

   You will get the output looking like this:


C:\Users\tester>wmic partition get BlockSize, StartingOffset, Name, Index
BlockSize Index Name   StartingOffset
512   0   Disk #0, Partition #0 32256
512   1   Disk #0, Partition #1 107619563520
512   2   Disk #0, Partition #2 201371304960
512   3   Disk #0, Partition #3 203016360960
512   0   Disk #1, Partition #0 32256
512   0   Disk #2, Partition #0 17408
512   1   Disk #2, Partition #1 134235136
512   0   Disk #3, Partition #0 1048576
512   0   Disk #4, Partition #0 1048576

In the screen shot, disk 0 has an incorrect alignment and disks 3 and 4 have the correct alignment.

Windows XP

In this case the procedure requires more commands:

1. Type **cmd** in the Run field and press **Enter**.
2. At the command line prompt type:

   diskpart

   list disk The screen will show the disks connected to your computer. Find out the disk number for your SSD using its size as reference

   select disk N Here N is the number of your SSD

   list partition

The output will show the size of SSD partition(s) and offset value.

If the SSD has an incorrect offset value, see Fixing SSD partition alignment (p. 149).

7.5.4 Fixing SSD partition alignment

If you did not properly prepare your SSD before transferring your system to it, the starting offset may turn out be incorrect. For example, this may occur if you upgraded Windows XP to Windows Vista/7.

Let's see how to fix the alignment problem.

1. Start True Image 2013 and click the **Backup and Recovery** tab.
2. Create a task for backing up your SSD in the disk backup mode.
3. Back up your SSD using as destination, for example, an external hard disk.
4. Shut down the computer and then boot using Windows installation CD.

   If you have a WinPE-based Acronis rescue media, you can boot from it. Boot to True Image and then exit it to go to the command line prompt.

   At the command line prompt type:

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diskpart
select disk N where N is the number of your SSD
clean
create partition primary align=1024
active
format fs=ntfs quick
exit
exit

5. Shut down the computer and then boot to Acronis rescue media.
6. Validate the backup to make sure that it can be used for recovery.
7. Click the **Recovery** tab and then click **Disk recovery**.
8. Select the backup of your SSD at the **Archive selection** step and then click **Next**.

   *If the disks have different disk letters in Windows and the recovery environment, click **Browse** and show the path to the backup.*

9. Select **Recover whole disks and partitions** and click **Next**.
10. Select the check box of the entire SSD disk and click **Next**.
11. Select the SSD as the destination and click **Next**.
12. When the confirmation window appears stating that the destination disk contains partitions, perhaps containing useful data, click **OK**.
13. Carefully read the summary of operations to check the settings you made and click **Proceed**.
14. After the recovery finishes, check the partition offset once more to make sure it is fixed.

7.5.5 Migrating to an SSD using the backup and recovery method

You can use the following procedure for all supported operating systems. First, let's consider a simple case: your system disk consists of a single partition. Note that for Windows 7, the system disk usually has a hidden System Reserved partition.

1. Start True Image 2013 and click the **Backup and recovery** tab.
2. Click **Disk and partition backup** and then back up your system disk (in the disk backup mode) to a hard disk other than your system hard disk and the SSD.
3. Mount the SSD into the slot where the hard disk was.

   For some SSD brands you may need to insert the SSD into a PCI Express slot.

4. Use Windows DiskPart utility to create a partition on the SSD.

   Press **Win+R** (or select **Start** -> **Run**) and type **cmd** to open the command line prompt, then type:

   diskpart
   select disk N where N is the number of your SSD
   clean
   create partition primary align=1024
   active
   format fs=ntfs quick
   exit
   exit

5. Switch off the computer and remove your system hard disk.

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6. Boot from your Acronis rescue media.
7. Validate the backup to make sure that it can be used for recovery. To do this, click **Recovery** on the left pane and select the backup. Right-click, select **Validate Archive** in the shortcut menu and then click **Proceed**.
8. After the validation finishes, right-click the backup and select **Recover** in the shortcut menu.
9. Choose **Recover whole disks and partitions** at the Recovery method step and then click **Next**.
10. Select the system disk at the What to recover step.
11. Click **New location** and then select the SSD as the new location for your system disk, then click **Accept**.
12. At the next step click **Proceed** to start recovery.
13. After the recovery is complete, exit the standalone version of True Image 2013.
14. Try to boot from the SSD and then make sure that Windows and applications work correctly.

If your system hard disk also contains a hidden recovery or diagnostic partition, as is quite often the case with notebooks, the procedure will differ. You will usually need to resize the partitions manually during recovery to the SSD. For instructions see Recovering a disk with a hidden partition (p. 89).

7.5.6 What to do if your SSD does not have enough space for all HDD content

Now let's see what can be done when the occupied space on your old hard disk exceeds the size of your SSD.

In this case, you need to move your data files from the old hard disk to another location, for example, to another hard disk drive.

If your notebook has space only for a single disk, your options are limited. You can move the data files you rarely use to an external hard disk. Alternatively, you can create zip archives of such files and then delete the original files. In addition, you can clean up the hard disk. Choose to delete the System Restore points on the More Options tab of the Disk Cleanup window.

After freeing up space on the old hard disk, check whether the occupied space is less than the SSD size. If so, perform the migration procedure described earlier. Take note that for stable operation, Windows needs to have several GB of free space on the system partition.

After you migrate the system, you can try to tweak some of the Windows settings. This will reduce the disk space required for Windows. In most cases you can safely perform the following:

- Turn off System Restore. You don't need it, because you have True Image 2013 for restoring your system.
- Disable Indexing Service.
- Turn off the hibernation mode.

7.6 Trying system changes safely

In this section

What is Try&Decide 152
Starting the Try mode 154

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Stopping the Try mode.....154
Try&Decide options and notifications 155
Try&Decide: typical use cases.....156

7.6.1 What is Try&Decide

The Try&Decide feature allows you to create a secure, controlled temporary workspace on your computer without requiring you to install special virtualization software. You can perform various system operations without worrying that you might damage your operating system, programs or data.

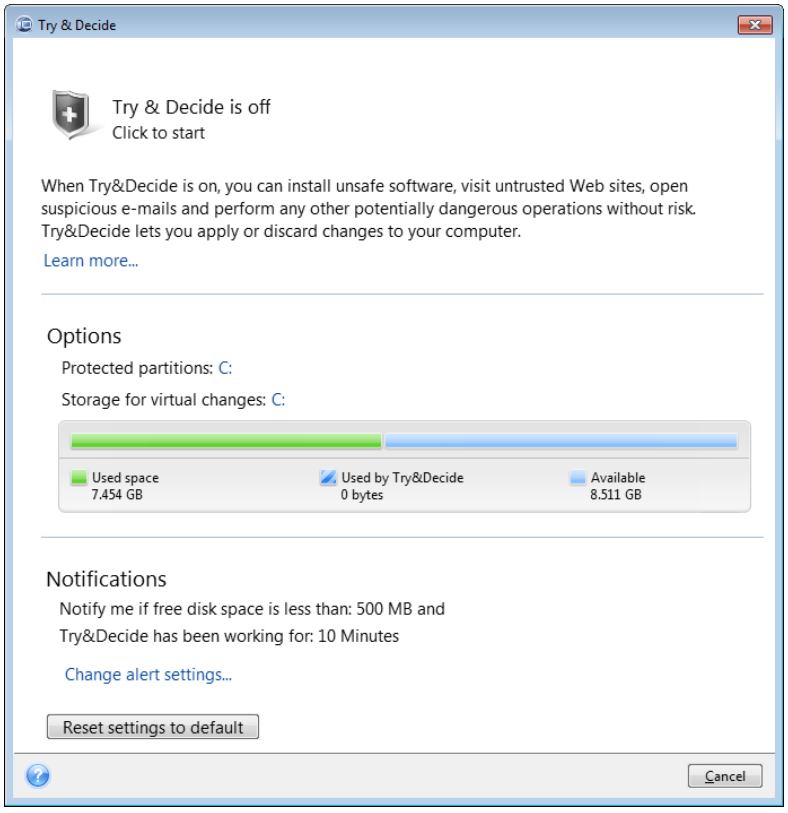
If you make virtual changes that you want to keep, you may apply them to your original system.

Among the operations you may attempt with this feature is to open mail attachments from unknown senders or visit websites that might contain potentially troublesome content.

For example, if you visit a website or open an email attachment that puts a virus on your temporary duplicate, you can simply destroy the duplicate and no harm will be done – the virus will not appear on your machine.

It is important to remember that if you download e-mail from a POP mail server, create new files or edit existing documents while in the Try mode and then decide to discard your changes, those files, document changes, and mail will no longer exist. If you use POP email, make sure to change the settings in your e-mail to leave your mail on the server before *you activate the Try mode. This way, you can always retrieve your email again. Similarly, save new files and/or edited documents to a drive not protected by Try&Decide.*

After starting the Try mode you can safely install any system updates, drivers and applications without worrying about what might happen to your system. If anything goes wrong, you can simply discard the changes made in the Try mode.


Try & Decide
Try & Decide is off
Click to start
When Try&Decide is on, you can install unsafe software, visit untrusted Web sites, open suspicious e-mails and perform any other potentially dangerous operations without risk. Try&Decide lets you apply or discard changes to your computer.
Learn more...
Options
Protected partitions: C:
Storage for virtual changes: C:
Used space
7.454 GB
Used by Try&Decide
0 bytes
Available
8.511 GB
Notifications
Notify me if free disk space is less than: 500 MB and
Try&Decide has been working for: 10 Minutes
Change alert settings...
Reset settings to default
Cancel

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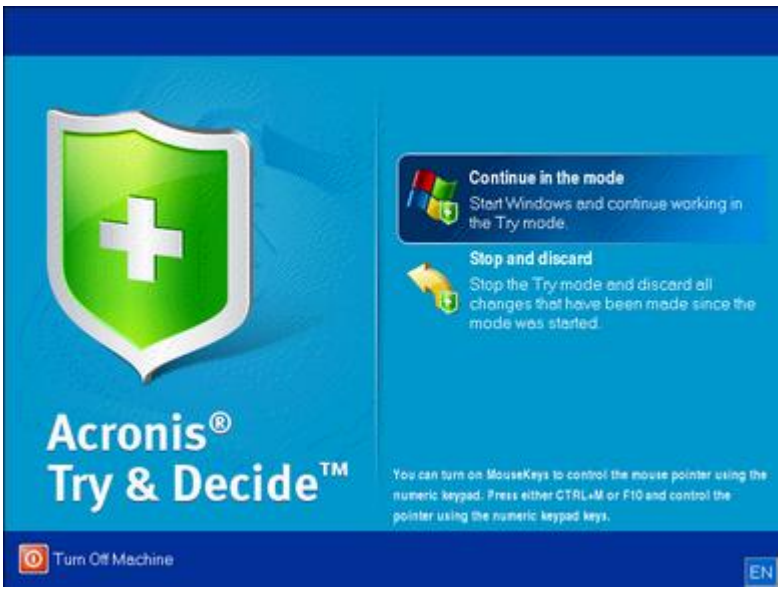
One of the best features of Try&Decide is that it isolates your "real" operating system from changes to the temporary operating system duplicate made by updates. Because of this, you can safely install system updates when they appear. When Windows Update informs you that updates for the system and Microsoft applications are ready for installation, turn on the Try&Decide and then proceed to install the updates. If you encounter any sort of problem, discard the changes and leave your real operating system and applications untouched.

You can leave the Try&Decide turned on as long as you like, because this mode "survives" across reboots of your operating system.

When your computer reboots for whatever reason while working in the Try mode, before booting of the operating system starts, you will be shown a dialog offering you two choices – stop the mode and discard changes or continue working in the mode. This will allow you to discard the changes that have resulted in a system crash. On the other hand, if you reboot, for example, after installing an application, you can continue working in the Try mode after starting Windows.


Continue in the mode
Start Windows and continue working in the Try mode.
Stop and discard
Stop the Try mode and discard all changes that have been made since the mode was started.
Acronis®
Try & Decide™
You can turn on MouseKeys to control the mouse pointer using the numeric keypad. Press either CTRL+M or F10 and control the pointer using the numeric keypad keys.
Turn Off Machine
EN

When you decide to turn the mode off, click the Try&Decide icon. The program will show a dialog where you should decide what to do with the changes to your system made in the Try mode - apply or discard.

Choosing **Apply changes** will allow you to keep the changes made to the system, and choosing **Discard changes** will return your system to the state it was in before turning on the Try&Decide. Choosing **Apply changes with reboot** will speed up applying the changes.

Limitations in using Try&Decide

If you use Windows Vista or Windows 7, please, be aware that in the Try mode the program may use free disk space quite intensively, even when your computer is idle. This is due to housekeeping activities such as indexing that run in the background.

Please note that while working in the Try mode you will experience slowing down of the system performance. Furthermore, the process of applying changes may take a long time, especially if you leave the Try mode turned on days on end.

Please be aware that Try&Decide cannot track changes in disk partitions, so you will be unable to use the Try mode for virtual operations with partitions such as resizing partitions or changing their

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layout. In addition, you must not use the Try&Decide and disk defragmentation or disk error checking utilities at the same time, because this can irreparably corrupt the file system, as well as make the system disk unbootable.

When the Try mode is started, you won't be able to use the previously activated Acronis Startup Recovery Manager. Rebooting the computer in the Try mode will allow you to use Acronis Startup Recovery Manager again.

Try&Decide and Nonstop Backup cannot work simultaneously. Starting the Try mode suspends Nonstop Backup. Nonstop Backup will resume after you stop the Try mode.

When the Try mode is started, you won't be able to use the "Hibernate" power saving mode.

7.6.2 Starting the Try mode

To start the Try mode:

- Click **Try&Decide** on the **Tools and utilities** tab.
- Set up the Try&Decide options:
  - Protected partitions (p. 155)
  - Storage for virtual changes (p. 155)
  - Alert settings (p. 156)
- Start the Try mode by clicking the Try & Decide icon. The program starts tracking all changes made to the OS and files and temporarily stores all the changes on the selected disk.

Every "soft" reboot of your computer while in the Try mode will result in adding up to 500 MB of Try&Decide's housekeeping data into the storage selected for storing virtual changes. This data will be added even if the protected partition has not changed between reboots.

Having performed all the changes you wanted to try, click the Try & Decide icon again to turn off the Try mode. The program will ask if you want to apply or to discard the changes.

True Image 2013 will track changes until the disk space in the location selected for storing virtual changes remains sufficient for applying the changes if you choose to apply them. Then the program will alert you that the time has come to make a decision on whether to apply or discard the changes made so far. If you choose to not heed the alert message, the program will automatically restart the system when the disk is full, discarding the changes in the process of rebooting. At that point, all changes will be lost.

7.6.3 Stopping the Try mode

When you decide to turn the mode off, click the Try & Decide icon in the **Try & Decide** window.

Select **Apply changes** if you want to keep the changes made to the system.

Select **Apply changes with reboot** if you want to speed up the applying process. When you click the button, Try&Decide restarts your computer and applies the changes during the reboot.

Select **Discard changes** if you want to return your system to the state it was in prior to turning on the Try mode.

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*If you have chosen **Discard Changes** and rebooted the computer with multiple operating systems installed, you won't be able to boot other operating systems except the one used for working in the Try mode. A second reboot will recover the original MBR and make other operating systems bootable.*

7.6.4 Try&Decide options and notifications

To view or edit the default options of the **Try&Decide** feature, select the **Tools and Utilities** tab and then click **Try&Decide**. The options and notifications will be displayed in the corresponding areas of the Try & Decide window.

You can change the following Try&Decide options and notifications:

- **Protected partitions:** specify the partitions you want to protect from unauthorized changes during a Try&Decide session. By default, Try&Decide protects the system partition (Disk C), though you may add other partitions or disks in your system.
- **Storage for virtual changes:** specify where Try&Decide will store information about virtual changes to your system. By default, Try&Decide saves the information to a free space on Disk C. You can also choose as such place Acronis Secure Zone or another logical disk or hard drive.

  When choosing to protect more than one partition, you cannot select one of the partitions to be protected to store virtual changes. In addition, you cannot select an external hard disk drive.
- **Notifications** – specify whether Try&Decide should alert you when it uses up all the space allotted for saving virtual changes and after a specified time period has passed. By default all notifications are **On**. To change the default settings, click **Change alert settings....**

Note, that after configuring the settings, you will always be able to recover their default values. To do so, click the **Reset settings to default** button.

7.6.4.1 Protected partitions

Specify the partition or partitions you want to protect from unauthorized changes during a Try&Decide session. By default, Try&Decide protects Disk C, though you may choose to protect any other partition(s) in your system.

To select a partition:

- Check the corresponding partition box. To select the entire disk, you must select all its partitions.
- Click **OK**.

7.6.4.2 Storage for virtual changes

Specify the partition you want to use as a storage for virtual changes that will appear during a Try&Decide session. By default, Try&Decide saves the information to a free space on Disk C. You can also choose as such place Acronis Secure Zone or another logical disk or hard drive.

When choosing to protect more than one partition, you cannot select one of the partitions to be protected to store virtual changes. In addition, you cannot select an external hard disk drive.

To select a partition:

- Click on the partition you want to store virtual changes on
- Click **OK**

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7.6.4.3 Alert settings

Specify whether Try&Decide should alert you when it uses up all the space allotted for saving virtual changes and after a specified time period has elapsed. By default the Alert is On.

The following options are available:

- **On free disk space remaining** - using this option, the program automatically checks the amount of free space left on the disk used by Try&Decide with values that you specify. If the amount of free space becomes less than the specified value, the program displays a notification message.
- **On time elapsed since Try&Decide started** - using this option, the program will notify you if Try&Decide has been working for longer than the period of time you specified.

Having specified the alert settings, click **OK**.

7.6.5 Try&Decide: typical use cases

The Try&Decide feature can help you in various circumstances, for example:

Software testing

There are known cases when installation of antivirus software cripples functionality of some applications or they may even refuse to launch after antivirus installation. The Try&Decide utility can help you to avoid such a problem. You may proceed as follows:

- Download a trial version of the antivirus software from the Web site of the vendor whose product you wish to try.
- Turn on the Try mode.
- Install the antivirus software.
- Try to work with the applications installed on your computer performing your usual tasks.
- If everything works without any snags, you can be reasonably sure that there will be no incompatibility problems and can buy the antivirus software.
- If you encounter any problems, discard the changes in your system caused by installing the antivirus and try antivirus software from another vendor. The new attempt might turn out to be successful.

File recovery

You have accidentally deleted some files and then emptied the Recycle Bin. Then you have remembered that the deleted files contained important data and now you are going to try to undelete them using the appropriate software. However, sometimes you may do something wrong while trying to recover deleted files, making things worse than before trying to recover them. So you can proceed as follows:

- Turn on the Try mode.
- Launch the file undelete utility.
- After the utility scans your disk in search of the deleted file or folder entries, it will present you the deleted entries it has found (if any) and offer you the opportunity to save whatever it can recover. There is always a chance that you might pick the wrong file and while recovering it the utility may overwrite the very file you are trying to recover. If not for the Try&Decide, this error would be fatal and the file would be lost irretrievably.

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- But now you can just discard the changes made in the Try mode and make one more attempt to recover the files after turning on the Try mode again. Such attempts may be repeated until you are sure that you have done your best in trying to recover the files.

Software uninstalling

It is well known that the "Add or Remove Programs" component of the Windows Control Panel cannot give a complete guarantee of cleanly uninstalling applications. This is because most applications do not provide enough information for it to be able to uninstall them without a trace. So almost every time you install a trial program and then remove it, you have some garbage left on your computer and after a while Windows may get slower. Even use of special uninstaller utilities cannot guarantee complete uninstallation. The Try&Decide feature, however, will ensure complete and perfect uninstallation of any software quickly and easily. Here's how:

- Turn on the Try mode.
- Install the software application you want to evaluate.
- Try using the application.
- When you want to uninstall it, just discard all the changes made to your computer in the Try mode.

This may come in handy not only for those who, for example, like to play a lot of games but for professional software testers as well – to use on their testing machines.

Web privacy

Suppose you do not want anybody to know, which Web sites you have visited or which pages you have opened - we all have the right to privacy. But the problem is that to make your Web surfing more comfortable and fast, the system stores this information and much more: cookies you have received, search engine queries you have made, URLs you have typed, etc. in special hidden files. And such information is not deleted completely when you clear your temporary Internet files, delete cookies, clear history of the recently opened Web pages using the browser's tools. So snoopers may be able to view the information using special software. Well, there are third-party programs that can wipe all your Internet activity tracks, but most of them will cost you money and time required for learning to use them. Now you have a much easier way – to use the **Try&Decide** feature.

Just make a couple of clicks to turn on the Try mode before launching your Internet browser. When you turn on the Try mode, the program creates a virtual disk. While the Try mode works, all changes to your system including those made by the system itself will be saved on this virtual disk. So you can surf the Web as you please. After you have finished using the browser, make a couple more clicks to discard the changes accumulated in the system in the Try mode and the system will be rebooted and reverted exactly to the state it was in prior to turning on the Try mode (including all those hidden files).

7.7 Scheduling

To open the **Scheduler** window, click the **Turn on** link to the right of **Schedule** while configuring a backup.

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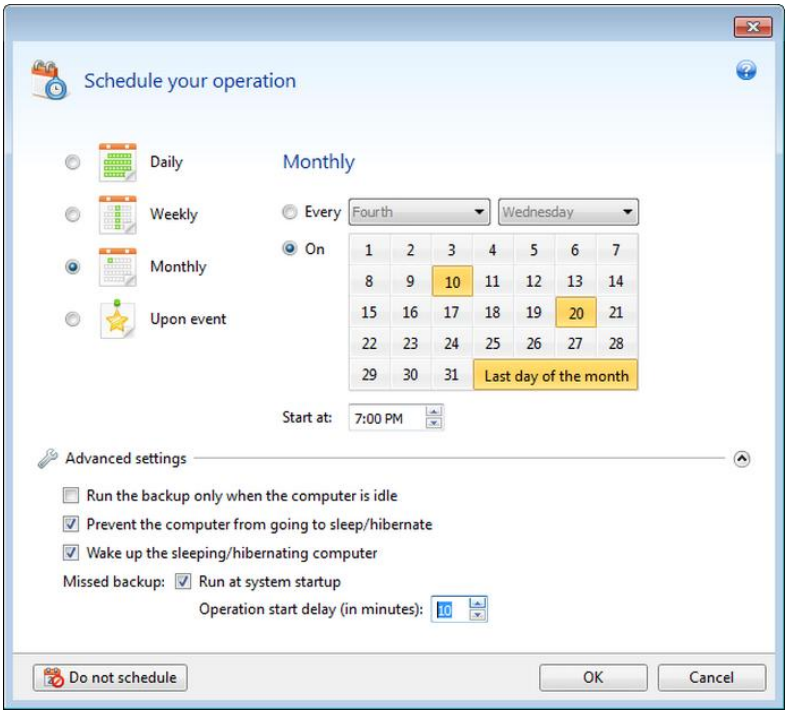
Here you can specify the backup and validation schedule settings.



You can choose and set up one of the following backup or validation frequencies:

- **Daily** (p. 159) - the operation will be executed once a day or more frequently.
- **Weekly** (p. 159) - the operation will be executed once a week or several times a week on the selected days.
- **Monthly** (p. 160) - the operation will be executed once a month or several times a month on the selected dates.
- **Upon event** (p. 160) - the operation will be executed upon an event.

Clicking the **Do not schedule** button turns off the scheduler for the current operation. In this case the backup or validation will run only when you click **Back up now** or **Validate backup** respectively in the main window.

Advanced settings

Clicking **Advanced settings** allows you to specify the following additional settings for backup and validation:

- To postpone a scheduled operation until the next time the computer is not in use (a screen saver is displayed or computer is locked), select the **Run the backup only when the computer is idle** check box. If you schedule validation, the check box will change to **Run the validation only when the computer is idle**.
- If you want to wake up the sleeping/hibernating computer to perform the scheduled operation, select the **Wake up the sleeping/hibernating computer** check box.
- If the computer is switched off when the scheduled time comes, the operation won't be performed. You can force the missed operation to run at the next system startup. To do so, select the **Run at system startup** check box.

  Additionally, you can set a time delay to start backup after the system startup. For example, to start backup 20 minutes after system startup, type *20* in the appropriate box.

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- If you schedule a backup to a USB flash drive or validation of a backup that is located on a USB flash drive, one more check box appears: **Run when the current destination device is attached**. Selecting the check box will let you perform a missed operation when the USB flash drive is attached if it was disconnected at the scheduled time.
- If you want to regularly back up data located on a removable media (for example USB flash drive) or remote storage (for example network folder or NAS), we recommend that you select the **Run when the current source device is attached** check box. This is useful because an external storage device may be often unavailable at the scheduled moment of backup. In that case, if the check box is selected, the missed backup operation will start when the device is connected or attached.
- **Run the backup upon HDD alarm** (available when Acronis Drive Monitor is installed) – if enabled, the backup will run as soon as there is an alarm on Acronis Drive Monitor about a potential problem with one of the hard disks in the backup source. Acronis Drive Monitor is a hard drive health monitoring utility based on information received from hard drive S.M.A.R.T. reports, Windows logs, and its own scripts.

Having finished scheduling, click **OK**.

In this section

Daily execution parameters 159
Weekly execution parameters 159
Monthly execution parameters 160
Upon event execution parameters 160

7.7.1 Daily execution parameters

You can set up the following parameters for daily operation execution:

- **Start time or periodicity**
  - If you select **At**, set the operation's start time. Enter hours and minutes manually, or set the desired start time using the up and down buttons. You can specify several start times by clicking **Add**.
  - If you select **Every**, choose daily operation periodicity from the dropdown list (for example, every 2 hours).

Description of the **Advanced settings** see in Scheduling (p. 157).

7.7.2 Weekly execution parameters

You can set up the following parameters for weekly operation execution:

- **Week days**

  Select the days on which to execute the operation by clicking on their names.
- **Start time**

  Set the operation's start time. Enter hours and minutes manually, or set the desired start time using the up and down buttons.

Description of the **Advanced settings** see in Scheduling (p. 157).

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7.7.3 Monthly execution parameters

You can set up the following parameters for monthly operation execution:

- **Periodicity or dates**
  - If you select **Every**, choose a numeral and the day of the week from the dropdown lists (example: First Monday - the operation will be performed on the first Monday of every month)
  - If you select **On**, choose the date(s) for operation execution (example: you may want the operation to be run on the 10th, 20th, and last day of the month)
- **Start time**

  Set the operation's start time. Enter hours and minutes manually, or set the desired start time using the up and down buttons.

Description of the **Advanced settings** see in Scheduling (p. 157).

7.7.4 Upon event execution parameters

You can set up the following parameters for the Upon event operation execution:

- **Event**
  - **User logon** – the operation will be executed each time the current user logs on to the OS.
  - **User logoff** – the operation will be executed each time the current user logs off the OS.
  - **System startup** – the operation will be executed at every OS startup.

    Additionally, you can set a time delay to start backup after the system startup. For example, to start backup 20 minutes after system startup, type *20* in the appropriate box.
  - **System shutdown** – the operation will be executed at every computer shutdown or reboot.

    This options is unavailable for e-mail backups.
- **Additional condition**
  - If you want to run an operation only at the first occurrence of the event on the current day, select the **Once a day only** check box.

Description of the **Advanced settings** see in Scheduling (p. 157).

7.8 Searching backups and their content

In this section

Searching.....160
Using Windows Search with True Image 2013 161

7.8.1 Searching

In addition to the ability to explore backups, True Image 2013 provides search for files in your backups.

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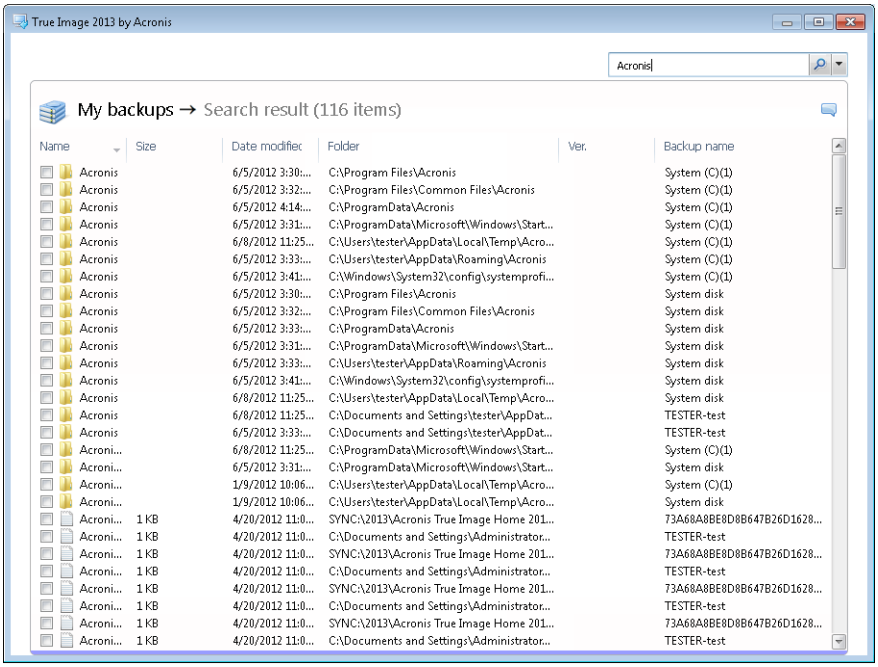
Enter a search string into the Search field at the top right of the True Image 2013 window. You will be taken to the Acronis Backup Explorer screen. The program shows search results.



By default True Image 2013 performs the search in all the sources where it can search information. That is, it searches files in all backups and their versions on all local storage devices.

*True Image 2013 cannot perform search on network shares, Acronis Cloud, and devices that are recognized by Windows as **Devices with removable storage**.*

The screen shows results of searches for files and folders in tib backups. Double-clicking on a filename opens the file. You can recover the file by right-clicking on its filename and choosing **Recover** in a shortcut menu. This shortcut menu also enables you to open the file or view its versions.

When searching files in backups you can type all or part of the filename and use the common Windows wildcard characters. For example, to find all batch files in the backups, type "*.bat". Typing my???.exe will allow you to find all .exe files with names consisting of five symbols and starting with "my". It should be noted that search is case-insensitive, i.e. "Backup" and "backup" is the same search string.

When a file is included in several backups and it has been modified, the search results will show the number of file versions in the appropriate column.

Please note that True Image 2013 does not search files in encrypted and password-protected tib backups nor in the password-protected Acronis Secure Zone. In addition, the program does not search files in zip backups created by True Image 2013.

7.8.2 Using Windows Search with True Image 2013

If you use any edition of Windows Vista or Windows 7 that has built-in Desktop Search functionality or Windows Desktop Search 3.0 or later, you can enable indexing for tib files.

If you do not have Windows Search installed, but would like to use it, you can download Windows Search 4.0 for free from Microsoft's Web site. To download, click

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http://www.microsoft.com/download/en/details.aspx?id=23. Double-click on the downloaded file and follow the instructions for installation.

True Image 2013 has a plug-in for Windows Search. To speed up searches in your backups, you can install the plug-in for indexing the backups. After indexing you will be able to search backup content by entering a filename into the Windows Search query field without opening True Image 2013. Using the search results you can:

- Select any file and open it for viewing and/or save that file back to anywhere in the file system (not in the backup) or where it was before
- See in which backup a given file is stored and recover that backup

In addition to indexing the files in backups by their names, Windows Search provides True Image 2013 with the ability to perform full-text indexing of many files in your backups. You will be able to use this feature and perform searches of the files' content.

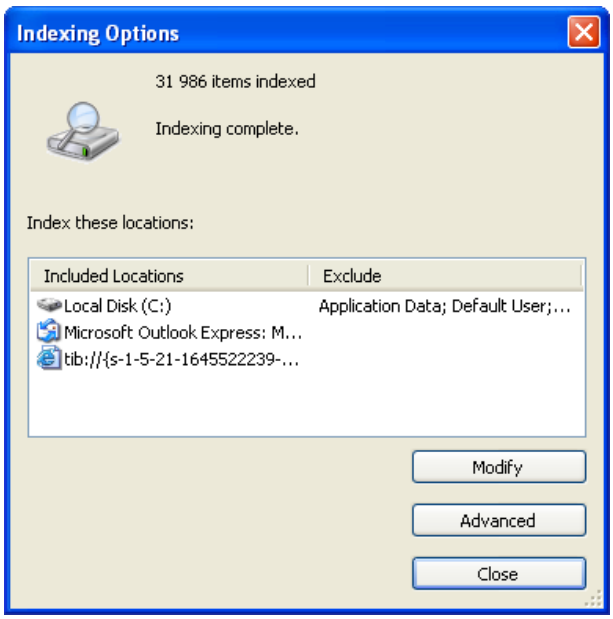
Full-text indexing of files in backup is provided only for the file types recognizable by Windows Search. It recognizes text files, Microsoft Office files, all Microsoft Office Outlook and Microsoft Outlook Express items, and more.

The contents of password-protected backups or backups protected by a password and encryption will not be indexed, though Windows Search provides search for the tib files of such backups. Furthermore, Windows Search has no access to Acronis Secure Zone, so it will be unable to search and index backups in the zone.

Windows Search does not support indexing of zip files content.

1. To register the plug-in, click the down arrow to the right of the Search field at the upper right corner of the main program window and then click **Use Windows Search**.
2. You can verify that the tib files indexing support is enabled. Right-click on the Windows Search icon in your system tray and select **Windows Desktop Search Options…** in the context menu. The following window appears. Make sure that the "tib://..." item is present in the Included Locations list.

   *To open the Indexing Options window in Windows Vista or Windows 7, open the Control Panel and then double-click the **Indexing Options** icon. The Windows Vista and Windows 7 indexing options have some differences in content and appearance, though most of the following information is applicable to those operating systems as well.*



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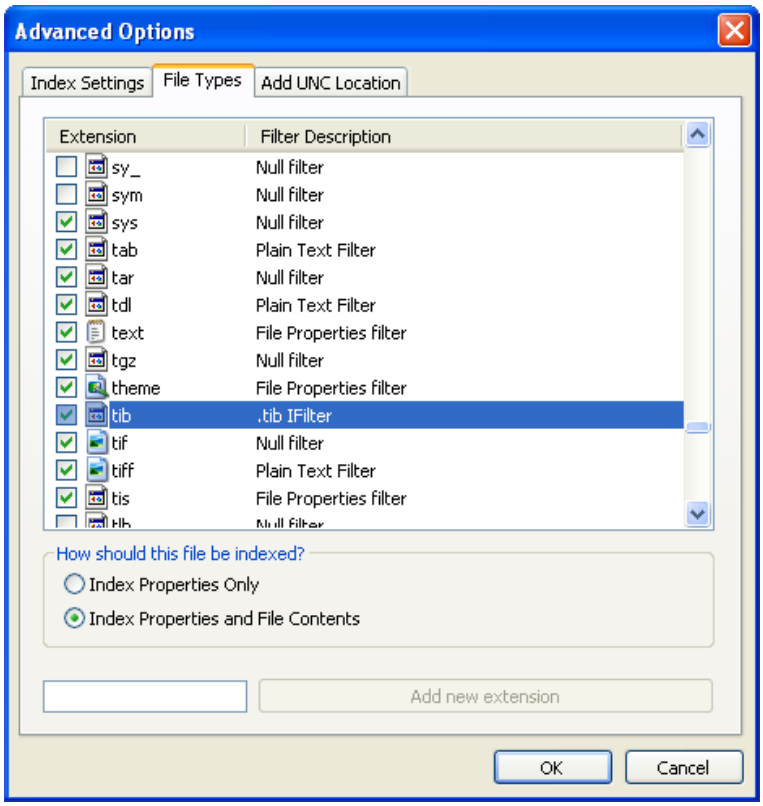
3. Click **Advanced**, select the **File Types** tab and then make sure that the **tib** extension is selected and ".tib IFilter" is shown in the Filter Description field. Select **Index Properties and File Contents**.



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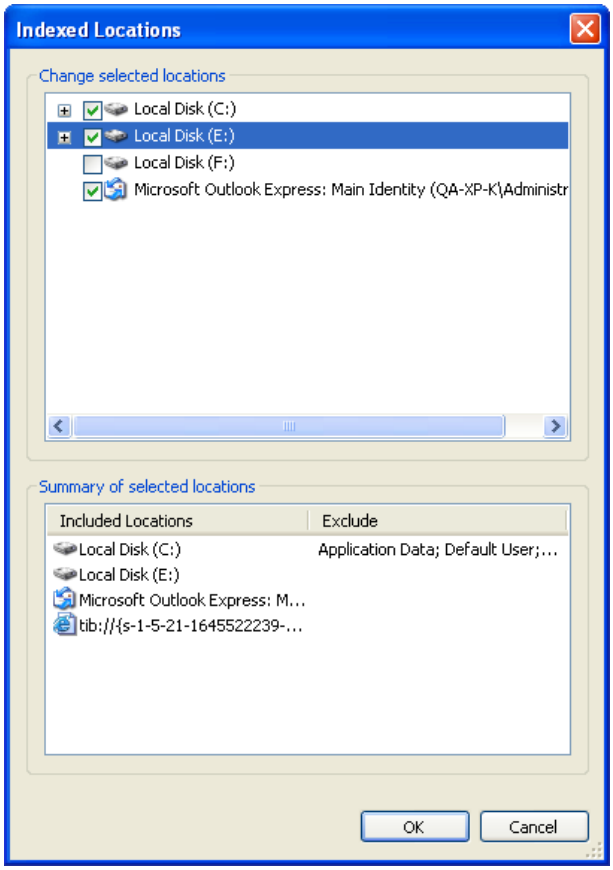
4. Click **OK** and while the **Indexing Options** window is open, check that the disks where you store your backups are shown in the "Included Locations" list. If the list does not contain those disks, the backups will not be indexed. To include the disks, click **Modify** and select them in the window that appears.



*If you store backups on a network share, Windows Search can index them too. You just have to add the share to the Indexed Locations list by typing the appropriate UNC path after selecting the **Add UNC Location** tab of **Advanced Options**.*

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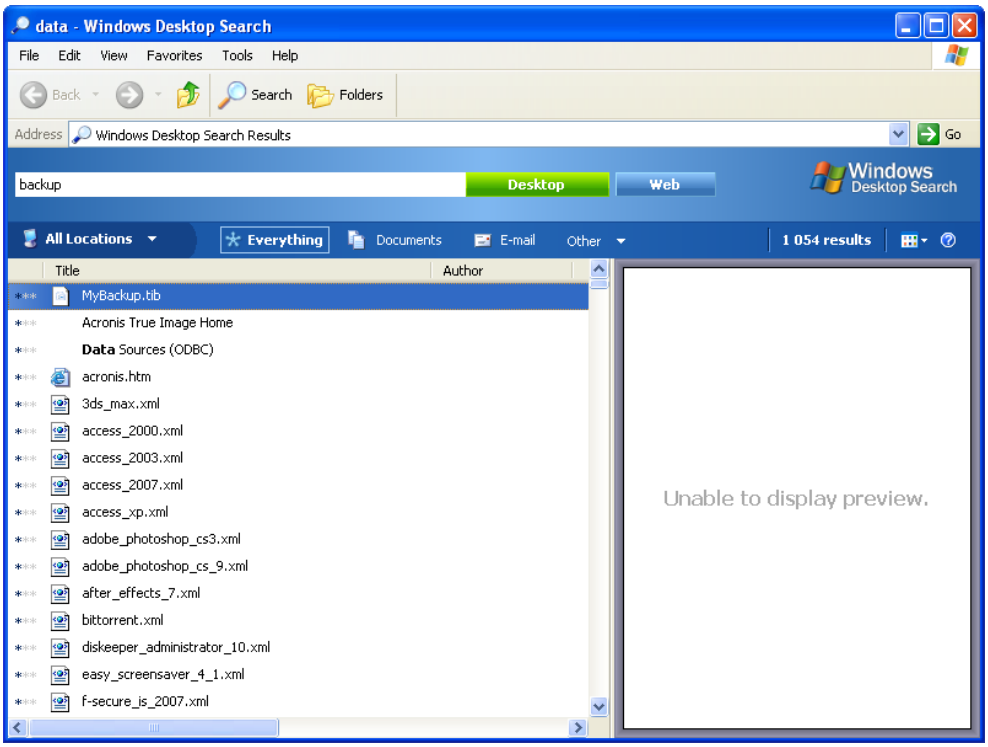
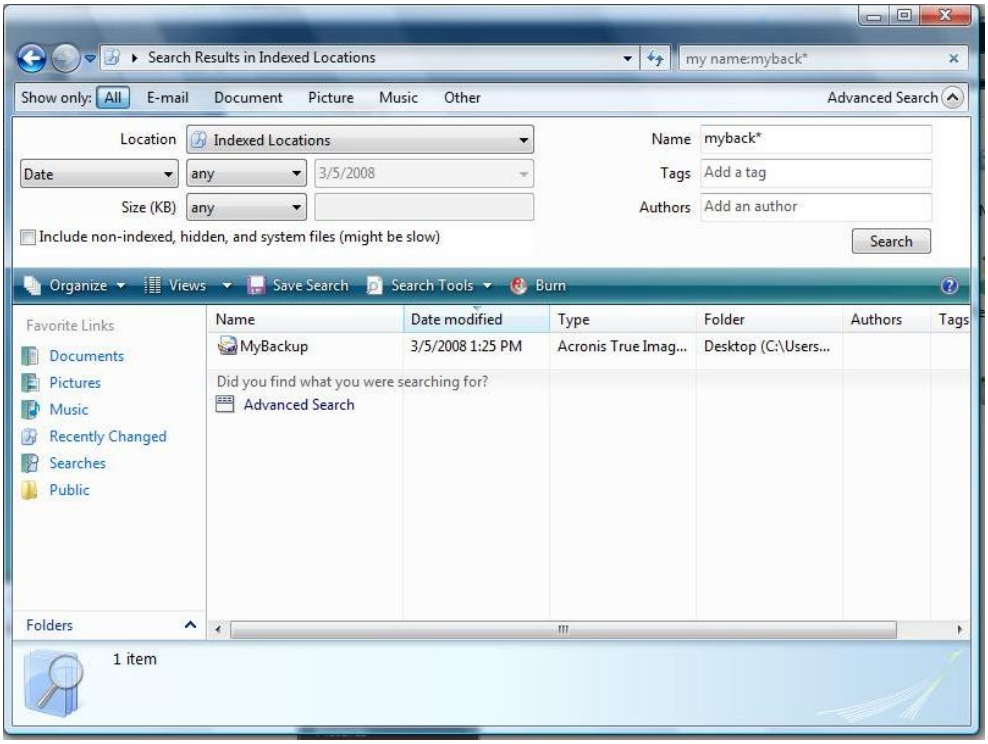
Give Windows Search some time for indexing Acronis backups on your computer's hard disks and adding the indexing information to its index database. The required time depends on the number of backups and the number of files they contain. After completing the indexing, the Windows Search will be able to search files in tib backups.



The search engines in Windows Search and Windows Vista or Windows 7 have similar functionalities, though search results are presented somewhat differently.



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7.9 Choosing columns for viewing in wizards

You can change the way the columns are represented in various wizards.

To sort items by a particular column, click the header (another click will switch the items to the opposite order).

To select columns to view, right-click in the right pane and select **Choose Columns** in the shortcut menu. Then flag the columns you want to display. You can also change the display order of columns using the **Move Up** and **Move Down** buttons.

You can change the width of a column by dragging its borders with the mouse.

7.10 Backup information

The backup information window provides detailed information about the selected backup.

- **Path** - the location where the backup is stored. In case it is an incremental or differential backup, the location may be different from the location where the full backup is stored.
- **Backup method** may be full, incremental or differential. For more information about types of backup see Full, incremental and differential backups (p. 39).
- **Backup file type** - either Acronis ***.tib**, or ***.zip** -compressed type. Zip extension belongs only to files and/or folders backups while tib extension may belong either to disk/partition, or file/folder backups.
- **Created** - the date and time when the backup was created.
- **Comments** - if you have entered comments, they will be shown here.

7.11 Timeout settings

Sometimes when the program performs an operation, an error message or a warning message may interrupt the operation progress. To resume the operation, some additional information or a decision is required from the user.

For example, such a situation may occur during a backup operation when the storage space in the destination location becomes insufficient for completing the backup. The program will wait for your decision on whether you want to cancel the backup, free some storage space or select another destination for the backup.

Timeout settings allow you to specify the time interval the program should wait for your response. Move the slider to the right to set the time interval (in minutes). Note that the **Infinite** setting is not recommended. If the response is not received during the interval, the operation will be canceled.

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8 Tools and utilities

Acronis Tools and utilities include Try&Decide, protection tools, mounting tools, backup conversion tools, clone disk utility, security and privacy utilities, disk management utilities, and backup settings transfer tools.

Try&Decide

Try any unsafe operation in the Try mode and then decide whether to apply or discard it.

Protection tools

- **Acronis Startup Recovery Manager**

  Allows you to start True Image 2013 without loading the operating system by pressing F11 at boot time before the operating system starts.
- **Rescue Media Builder**

  Allows you to create a bootable rescue media with Acronis products (or their specified components) installed on your computer.
- **Acronis Secure Zone**

  Allows you to store your backups in a special safe partition on your disk.
- **Boot Sequence Manager**

  Allows you to add Windows 7 system partition images to the booting list and then manage the list. This tool is available for Windows 7 Ultimate / Enterprise editions only.

Backup settings transfer

- **Import backup settings**

  Allows you to get backup settings from another computer.
- **Export backup settings**

  Allows you to copy the settings of your backups and move them to another computer.

Backup conversion

- **Acronis backup conversion**

  Use the feature to convert a backup file format from tib to vhd. The vhd files can be used, for example, in Windows Vista and Windows 7 operating systems for mounting disk images without using True Image 2013.
- **Windows backup conversion**

  Use the feature to convert a backup file format from vhd to tib. The latter is the native file format of Acronis backups.

Clone disk

Use Clone disk wizard if you need to clone your hard disk drive by copying the partitions to another hard disk.

Security and privacy

- **Acronis DriveCleanser**

  Acronis DriveCleanser utility provides for secure destruction of data on your hard disk.
- **File Shredder**

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With the File Shredder you can quickly select unnecessary files and folders and destroy them permanently.

- **System Clean-up**

  With the System Clean-up utility, you can clean up components (folders, files, registry sections, etc.), related to general system tasks. These Windows components retain evidence of user PC activity, so they too should be thoroughly wiped to maintain confidentiality.

Disk management

- **Add new disk**

  Add new disk wizard helps you to add a new hard disk drive to your computer. You will be able to prepare the new hard disk drive by creating and formatting new partitions on this hard disk.

- **Acronis Extended Capacity Manager**

  If you use an operating system that has a 2 TB limitation on hard drive capacity, this tool will help you to lift this restriction. You will be able to use all the space of your 3 TB disk, and not only 2 TB.

- **View current state of your disks**

  This link opens an integrated Acronis Disk Editor (in read-only mode) to show you the state of your cleaned up disks or partitions. For more information see Disk Editor (read-only mode) (p. 210).

Image mounting

- **Mount image**

  With this tool you can explore a previously created image. You will be able to assign temporary drive letters to the partition images and easily access these images as ordinary, logical drives.

- **Unmount image**

  With this tool you can unmount the temporary logical drives you have created to explore an image.

8.1 Acronis Startup Recovery Manager

8.1.1 How it works

The Acronis Startup Recovery Manager lets you start True Image 2013 without loading the operating system. With this feature, you can use True Image 2013 by itself to recover damaged partitions, even if the operating system won't boot. Unlike booting from Acronis removable media, you will not need a separate media or network connection to start True Image 2013.

8.1.2 How to use

To be able to use Acronis Startup Recovery Manager at boot time, prepare as follows:

1. Install True Image 2013.

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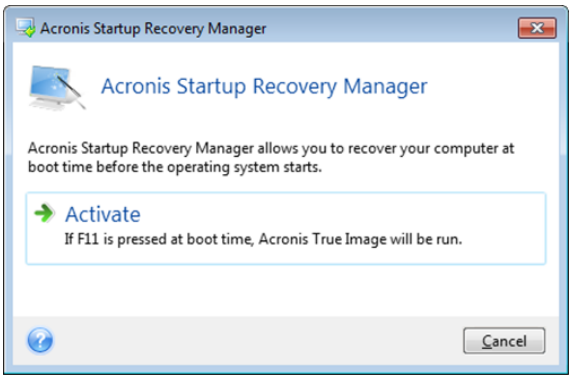
2. Activate Acronis Startup Recovery Manager.


Acronis Startup Recovery Manager
Acronis Startup Recovery Manager
Acronis Startup Recovery Manager allows you to recover your computer at boot time before the operating system starts.
Activate
If F11 is pressed at boot time, Acronis True Image will be run.
Cancel

When Acronis Startup Recovery Manager is activated, it overwrites the master boot record (MBR) with its own boot code. If you have any third-party boot managers installed, you will need to reactivate them after the Startup Recovery Manager has been activated. For Linux loaders (e.g. LiLo and GRUB), you might consider installing them to a Linux root (or boot) partition boot record instead of MBR before activating Acronis Startup Recovery Manager.

If a failure occurs, turn on the computer and press F11 when you see the "Press F11 for Acronis Startup Recovery Manager" message. This will start a standalone version of True Image 2013 that differs only slightly from the complete version.

8.2 Creating bootable rescue media

In this section

Acronis Media Builder.....169
Creating BartPE disc with True Image 2013.....174
Creating WinPE-based rescue media.....176
How to prepare a USB flash drive for Acronis Media Builder.....181

8.2.1 Acronis Media Builder

You can run True Image 2013 from an emergency boot media on a bare-metal system or a crashed computer that cannot boot. You can even back up disks on a non-Windows computer, copying all its data into the backup by imaging the disk in the sector-by-sector mode. To do so, you will need bootable media that has a copy of the standalone True Image 2013 version installed on it.

If you purchased the boxed product, you already have a bootable CD, because the installation CD itself is bootable.

If you purchased True Image 2013 on the Web or as a download from a retailer, you can create bootable media using the Bootable Media Builder. For this, you will need a blank CD-R/RW, a blank DVD+R/RW or any other media from which your computer can boot, such as a USB flash drive.

Please note, you cannot boot Windows *operating system from a bootable media created on a USB flash drive.*

True Image 2013 also provides the ability to create an ISO image of a bootable disc on the hard disk.

If you have other Acronis products, such as Acronis Disk Director Home installed on your computer, you can include standalone versions of these programs on the same bootable media as well.

Notes

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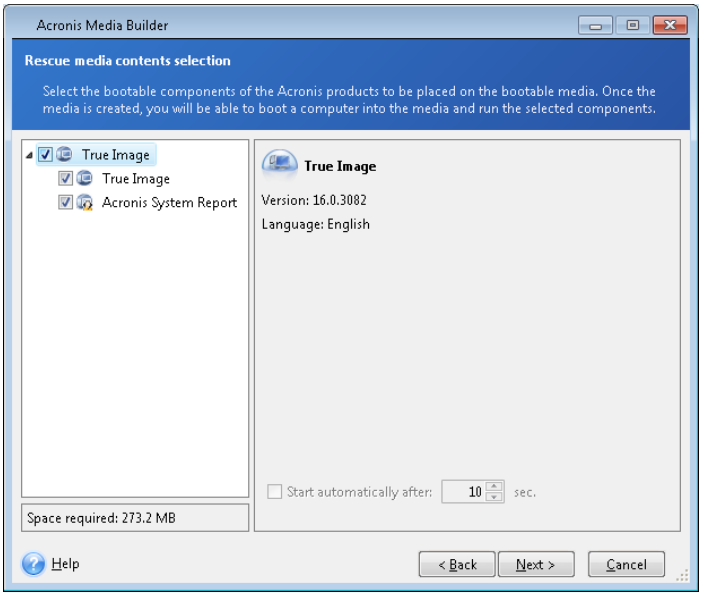
- If you have chosen not to install the Bootable Media Builder during True Image 2013 installation, you will not be able to use this feature.
- When booting from the Rescue Media, you cannot perform backups to disks or partitions with Ext2/Ext3/Ext4, ReiserFS, and Linux SWAP file systems.
- Please keep in mind that the backups created by the later program version may be incompatible with the previous program versions. Due to this reason, we strongly recommend that you create a new bootable media after each True Image 2013 upgrade.
- When booting from the rescue media and using a standalone version of True Image 2013 you cannot recover files and folders encrypted with use of the encryption available in Windows XP and later operating systems. For more information see File-level security settings for backup (p. 71). On the other hand, backups encrypted using the True Image 2013 encryption feature can be recovered.

8.2.1.1 Rescue media contents selection

You can select which components of Acronis programs you want to place on the bootable media. If you have other Acronis products installed on your computer, such as Acronis Disk Director Home, the bootable versions of these programs' components will be offered as well.

True Image 2013 offers the following components:

- **True Image**- includes support of USB, PC Card (formerly PCMCIA) and SCSI interfaces along with the storage devices connected via them, and therefore is strongly recommended.
- **Acronis System Report** - the component allows you to generate a system report that is used for collecting information about your system in case of any program problem. Report generation will be available before you start True Image 2013 from the bootable media. The generated system report can be saved to a USB flash drive.


Acronis Media Builder
Rescue media contents selection
Select the bootable components of the Acronis products to be placed on the bootable media. Once the media is created, you will be able to boot a computer into the media and run the selected components.
True Image
True Image
Acronis System Report
True Image
Version: 16.0.3082
Language: English
Start automatically after:
10
sec.
Space required: 273.2 MB
Help
< Back
Next >
Cancel

To select a component:

- Select the check box of the program you want to include into the bootable media. The bottom field displays the space required for the selected components. If you have other Acronis products

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installed on your computer, you can also include standalone versions of these programs into the same bootable media.

- If automatic start of the program is necessary, select the **Starts automatically after** check box. The **Start automatically after** parameter specifies the timeout interval for the boot menu. If this parameter is not specified, the program will display the boot menu and wait for you to select whether to boot the OS or the Acronis component. If you set, for example, **10 sec** for Acronis rescue media, the standalone True Image 2013 will launch 10 seconds after the menu is displayed.
- Click **Next** to continue.

8.2.1.2 Bootable media startup parameters

Here, you can set bootable media startup parameters in order to configure rescue media boot options for better compatibility with different hardware. Several options are available (nousb, nomouse, noapic, etc.). These parameters are provided for advanced users. If you encounter any hardware compatibility problems while testing boot from the rescue media, it may be best to contact Acronis Technical Support.

To add a startup parameter

- Enter a command into the **Parameters** field.
- Having specified the startup parameters, click **Next** to continue.

Additional parameters that can be applied prior to booting Linux kernel

Description

The following parameters can be used to load Linux kernel in a special mode:

- **acpi=off**

Disables ACPI and may help with a particular hardware configuration.

- **noapic**

Disables APIC (Advanced Programmable Interrupt Controller) and may help with a particular hardware configuration.

- **nousb**

Disables loading of USB modules.

- **nousb2**

Disables USB 2.0 support. USB 1.1 devices still work with this option. This option allows using some USB drives in USB 1.1 mode, if they do not work in USB 2.0 mode.

- **quiet**

This parameter is enabled by default and the startup messages are not displayed. Deleting it will result in the startup messages being displayed as the Linux kernel is loaded and the command shell being offered prior to running the program.

- **nodma**

Disables DMA for all IDE disk drives. Prevents kernel from freezing on some hardware.

- **nofw**

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Disables FireWire (IEEE1394) support.

- **nopcmcia**

Disables PCMCIA hardware detection.

- **nomouse**

Disables mouse support.

- **[module name]=off**

Disables the module (e.g. **sata_sis=off**).

- **pci=bios**

Forces to use PCI BIOS, and not to access the hardware device directly. For instance, this parameter may be used if the machine has a non-standard PCI host bridge.

- **pci=nobios**

Disallows use of PCI BIOS; only direct hardware access methods are allowed. For instance, this parameter may be used if you experience crashes upon boot-up, probably caused by the BIOS.

- **pci=biosirq**

Uses PCI BIOS calls to get the interrupt routing table. These calls are known to be buggy on several machines and they hang the machine when used, but on other computers it is the only way to get the interrupt routing table. Try this option, if the kernel is unable to allocate IRQs or discover secondary PCI buses on your motherboard.

- **vga=ask**

Gets the list of the video modes available for your video card and allows selecting a video mode most suitable for the video card and monitor. Try this option, if the automatically selected video mode is unsuitable for your hardware.

8.2.1.3 Bootable media selection

Select a destination for bootable media creation:

- **CD-R/RW** - if you are creating CD, insert a blank disc so that the program can determine its capacity.
- **ISO image** - having created an ISO disk image, you will be able to burn it onto any kind of recordable DVD, using DVD recording software. Creating a bootable DVD directly from Bootable Media Builder is impossible.
- any other media your PC can boot from, such as USB flash drives, etc.

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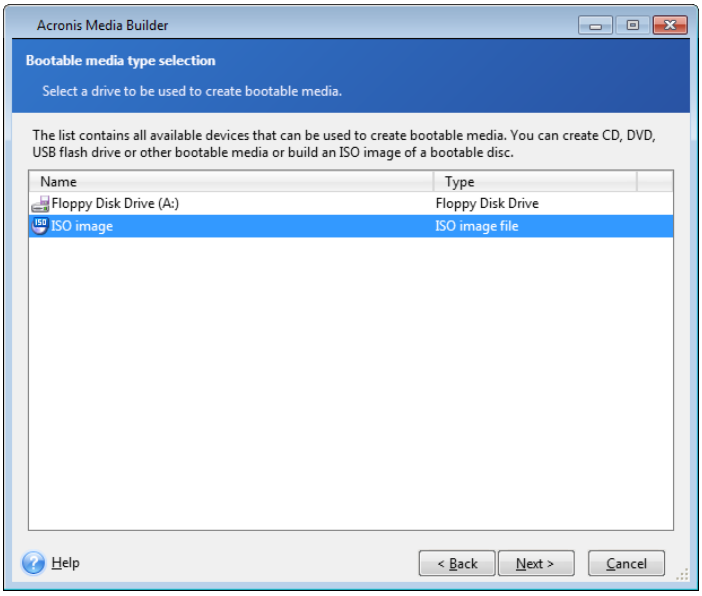
If you use non-optical media, the media must have a FAT file system. This limitation is not applicable for an ISO image.


Acronis Media Builder
Bootable media type selection
Select a drive to be used to create bootable media.
The list contains all available devices that can be used to create bootable media. You can create CD, DVD, USB flash drive or other bootable media or build an ISO image of a bootable disc.
Name
Type
Floppy Disk Drive (A:)
Floppy Disk Drive
ISO image
ISO image file
Help
< Back
Next >
Cancel

8.2.1.4 Destination file selection

If you chose to create a bootable disk ISO image, specify the ISO file name and the folder where to place it:

- Select the destination folder from the folder tree
- Enter a name for the .iso file in the **File name** field
- Click **Next** to continue

8.2.1.5 Bootable media creation summary

This page displays operations to be performed.

Click **Proceed** to start the bootable media creation process.

Use the sidebar on the left to navigate through the wizard's steps for revision.

To cancel operation and quit Acronis Media Builder, click **Cancel**.

After you create a boot disc, mark it and keep it in a safe place.

Please keep in mind that the backups created by the later program version may be incompatible with the previous program versions. Due to this reason, we strongly recommend that you create a new bootable media after each True Image 2013 upgrade. One more thing you should remember – when booting from the rescue media and using a standalone version of True Image 2013 you cannot recover files and folders encrypted with use of the encryption feature available in Windows XP and later operating systems. For more information see File-level security settings for backup (p. 71). On the other hand, backups encrypted using the True Image 2013 encryption feature can be recovered.

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8.2.1.6 How to create a bootable USB flash drive

You can create a bootable USB flash drive containing a standalone True Image 2013. This may be handy, for example, if your notebook does not have an internal CD/DVD-drive.

You will need a USB flash drive with a capacity of 256 MB or more. The drive must be formatted in FAT16 or FAT32 file system.

To create a bootable USB flash drive, attach the drive to a USB port. Start Media Builder and then select the drive as the destination for the rescue media creation. Then follow the Media Builder wizard steps. For more information on creating the media see How to create bootable media.

If Media Builder does not recognize your USB flash drive, you can try using the procedure described in an Knowledge Base article at http://kb.acronis.com/content/1526.

8.2.2 Creating BartPE disc with True Image 2013

BartPE (Bart Preinstalled Environment) is a bootable Windows CD/DVD created from the original Windows XP or Windows Server 2003 installation/setup CD. The current version of True Image 2013 does not have a plug-in for a preinstalled environment based on Windows Vista and Windows 7.

The main advantage of BartPE is that it uses Windows drivers and has a Windows-like graphical user interface. It also provides for adding any storage drivers at startup in the same manner as when installing Windows on the hard drive (by pressing F6 and inserting a diskette with the drivers).

Applications are installed into BartPE in the form of plug-ins and the True Image 2013 plug-in can be included into the BartPE plug-in tab.

If you do not have the boxed version of True Image 2013, you will need to download a separate installation file from your Acronis account:

- Go to https://www.acronis.com/my;
- Log in;
- Register the serial number for your copy of True Image 2013 (if it is not registered yet);
- Click **My Products & Downloads**;
- Expand **True Image 2013** item;
- Click on **Free Plugins** tab, then click on **BartPE Plugin**. This will start the download of the plugin.

Install the plug-in as follows:

1. Double-click on the downloaded file to start installation.
2. Having finished the installation, you can proceed with creating a BartPE CD/DVD with True Image 2013 plug-in.

The below description is based on PE builder version 3.1.10a.

To create a BartPE CD with the True Image 2013 plug-in follow the instructions below:

- Download the PE builder using link http://nu2.nu/pebuilder/download/ and install it;

Go to the True Image 2013 installation folder. (The default folder is C:\Program Files\Acronis or C:\Program Files\Acronis\Media Add-ons). Rename the BartPE folder to Acronis. Copy this folder into the Plugin folder in the BartPE builder installation directory. (The default directory is C:\pebuilder3110a or similar);

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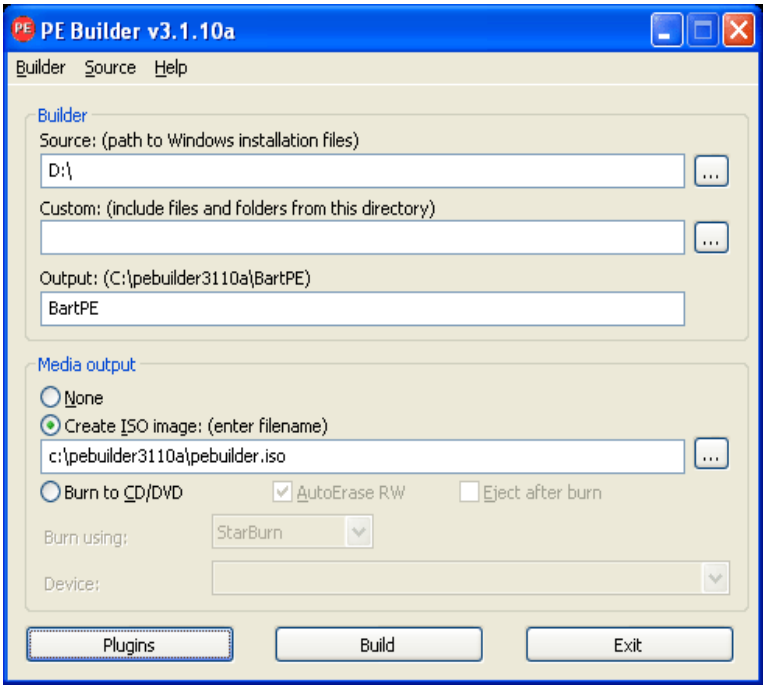
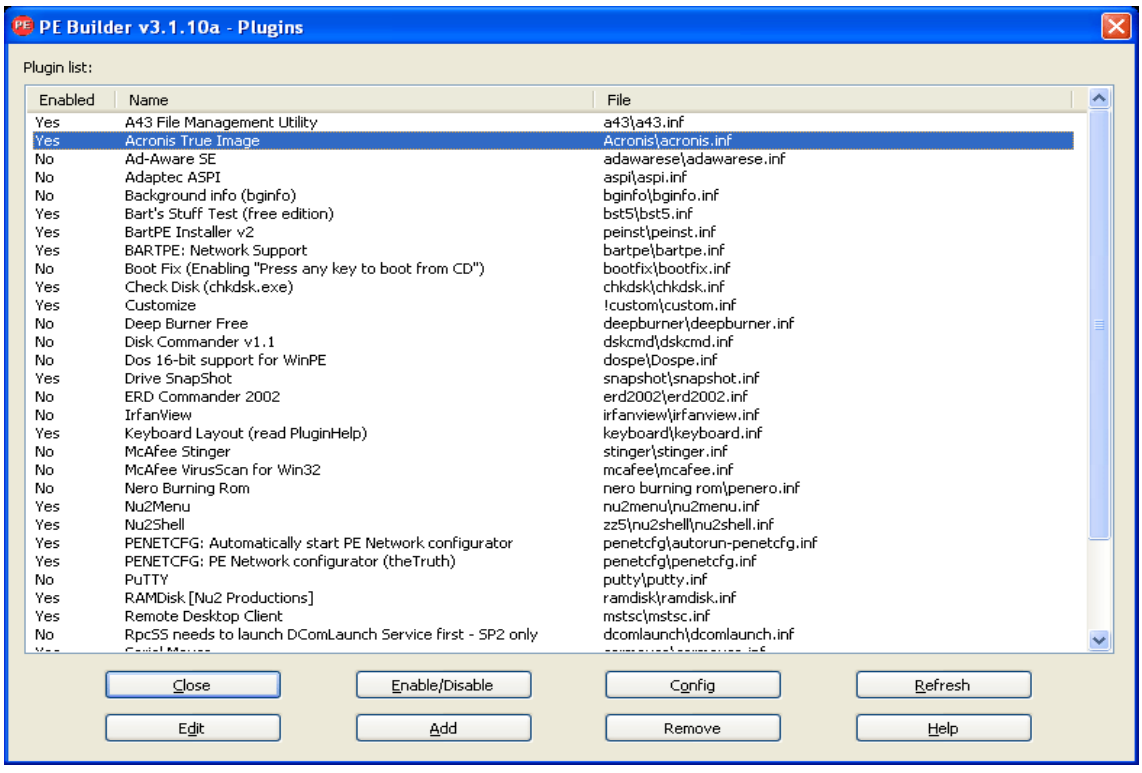
Run the PE builder, put in the necessary paths (the online help is available at http://nu2.nu/pebuilder/help/), and click the Plugins button:



Make sure you have the True Image 2013 plug-in enabled on the Plugins screen:


PE Builder v3.1.10a - Plugins
Plugin list:
Enabled Name File
Yes A43 File Management Utility a43\a43.inf
Yes Acronis True Image Acronis\acronis.inf
No Ad-Aware SE adawarese\adawarese.inf
No Adaptec ASPI aspi\aspi.inf
No Background info (bginfo) bginfo\bginfo.inf
Yes Bart's Stuff Test (free edition) bst5\bst5.inf
Yes BartPE Installer v2 peinst\peinst.inf
Yes BARTPE: Network Support bartpe\bartpe.inf
No Boot Fix (Enabling "Press any key to boot from CD") bootfix\bootfix.inf
Yes Check Disk (chkdsk.exe) chkdsk\chkdsk.inf
Yes Customize !custom\custom.inf
No Deep Burner Free deepburner\deepburner.inf
No Disk Commander v1.1 dskcmd\dskcmd.inf
No Dos 16-bit support for WinPE dospe\Dospe.inf
Yes Drive SnapShot snapshot\snapshot.inf
No ERD Commander 2002 erd2002\erd2002.inf
No IrfanView irfanview\irfanview.inf
Yes Keyboard Layout (read PluginHelp) keyboard\keyboard.inf
No McAfee Stinger stinger\stinger.inf
No McAfee VirusScan for Win32 mcafee\mcafee.inf
No Nero Burning Rom nero burning rom\penero.inf
Yes Nu2Menu nu2menu\nu2menu.inf
Yes Nu2Shell zz5\nu2shell\nu2shell.inf
Yes PENETCFG: Automatically start PE Network configurator penetcfg\autorun-penetcfg.inf
Yes PENETCFG: PE Network configurator (theTruth) penetcfg\penetcfg.inf
No PuTTY putty\putty.inf
Yes RAMDisk [Nu2 Productions] ramdisk\ramdisk.inf
Yes Remote Desktop Client mstsc\mstsc.inf
No RpcSS needs to launch DComLaunch Service first - SP2 only dcomlaunch\dcomlaunch.inf
Close
Enable/Disable
Config
Refresh
Edit
Add
Remove
Help

Close the Plugins window and click the Build button to start the building process. If you want the image to be burned to CD, select the Burn to CD option and choose the necessary burner in the Device menu;

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After the image is created, burn it to CD or DVD. (If you did not check the Burn to CD option at the previous step.)

After booting from the CD/DVD, you can find the True Image 2013 plug-in in Go/System/Storage.

Adding drivers

BartPE supports adding two types of drivers: storage drivers and network drivers. For instructions on how to add drivers refer to PE builder driver help at http://www.nu2.nu/pebuilder/help/english/drivers.htm.

There is also an option to add storage drivers (for RAID or SCSI devices) during BartPE boot-up. (You need to press F6 and point to the diskette with the drivers). Common storage drivers are available at http://nu2.nu/pebuilder/drivers/.

When you boot from the newly created BartPE media, True Image 2013 can be found here:

Go –> System –> Storage –> True Image 2013.

8.2.3 Creating WinPE-based rescue media

To create a WinPE-based rescue media, you need to purchase and install True Image 2013 Plus Pack.

Acronis Plug-in for WinPE can be added to WinPE distributions based on any of the following kernels:

- Windows Vista (PE 2.0) (also suitable for Windows XP SP2 with KB926044 or later)
- Windows Vista SP1 (PE 2.1) (also suitable for Windows XP SP2 with KB926044 or later)
- Windows 7 (PE 3.0) (also suitable for Windows 8)

Attention! Acronis Plug-in for WinPE cannot be added to WinPE distributions based on the Windows 8 kernel (PE 4.0).

To be able to create or modify PE 2.x and 3.0 images, you must have Windows Automated Installation Kit (AIK) installed.

If you do not have Windows AIK installed on your PC, prepare as follows:

1. Download and install Windows Automated Installation Kit.

   AIK for Windows Vista and Windows XP with Service Pack 2 or later (PE 2.0):

   http://www.microsoft.com/Downloads/details.aspx?familyid=C7D4BC6D-15F3-4284-9123-679830D629F2&displaylang=en

   AIK for Windows Vista SP1 (PE 2.1):

   http://www.microsoft.com/downloads/details.aspx?FamilyID=94bb6e34-d890-4932-81a5-5b50c657de08&DisplayLang=en

   AIK for Windows 7 (PE 3.0):

   http://www.microsoft.com/DOWNLOADS/details.aspx?familyid=696DD665-9F76-4177-A811-39C26D3B3B34&displaylang=en
2. [optional] Burn the Windows AIK to DVD or copy to a flash drive.
3. Install the Microsoft .NET Framework v.2.0 from this kit (NETFXx86 or NETFXx64, depending on your hardware).
4. Install Microsoft Core XML (MSXML) 6.0 Parser from this kit.
5. Install Windows AIK from this kit.

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It is recommended that you familiarize yourself with the help documentation supplied with Windows AIK. A good starting point is the "Create an image" section of "Getting Started for IT Professionals" white paper. To access the document, select **Microsoft Windows AIK** -> **Documentation** -> **Getting Started for IT Professionals** from the **Start** menu.

For more information on customizing Windows PE, see the Windows Preinstallation Environment User's Guide (Winpe.chm).

Integrating True Image 2013 with WinPE 2.x or 3.0 ISO

Acronis WinPE ISO Builder provides three methods of integrating True Image 2013 with WinPE 2.x and WinPE 3.0:

- Creating the PE 2 or PE 3 ISO with the plug-in from scratch.
- Adding the Acronis Plug-in to the existing PE 2 or PE 3 ISO. This comes in handy when you have to add the plug-in to the previously configured PE 2 or PE 3 ISO that is already in use.
- Adding the Acronis Plug-in to a WIM file for any future purpose (manual ISO building, adding other tools to the image and so on).

To be able to perform any of the above operations, True Image 2013 Plus Pack and Windows Automated Installation Kit (WAIK) must be installed on your PC. If you have not installed WAIK, install it as described earlier in this section.

Acronis WinPE ISO Builder supports only x86 WinPE 2.x and WinPE 3.0. This WinPE distribution can also work on x64 hardware.

A PE image based on Win PE 2.x or 3.0 requires at least 256MB RAM to work. The recommended memory size for PE 2.x or 3.0 is 512MB.

8.2.3.1 Creating a new Win PE 2.x or PE 3.0 ISO with the Acronis Plug-in

You must have True Image 2013 Plus Pack installed on your PC.

Creating a new Win PE 2.x or PE 3.0 ISO with the Acronis Plug-in begins from creating a Windows PE build directory:

1. Select **Microsoft Windows AIK** -> **Windows PE Tools Command Prompt** from the **Start** menu.

   Users of Windows 7 should select **Microsoft Windows AIK** -> **Deployment Tools Command Prompt** from the **Start** menu.
2. Run the **copype.cmd** script to create a folder with Windows PE files. For example, from a command prompt, type:

   ```
   copype x86 c:\winpe_x86
   ```

   When the operation finishes, create an ISO:
3. Select **Acronis** -> **True Image 2013 Plus Pack** -> **Acronis WinPE ISO Builder** from the **Start** menu.

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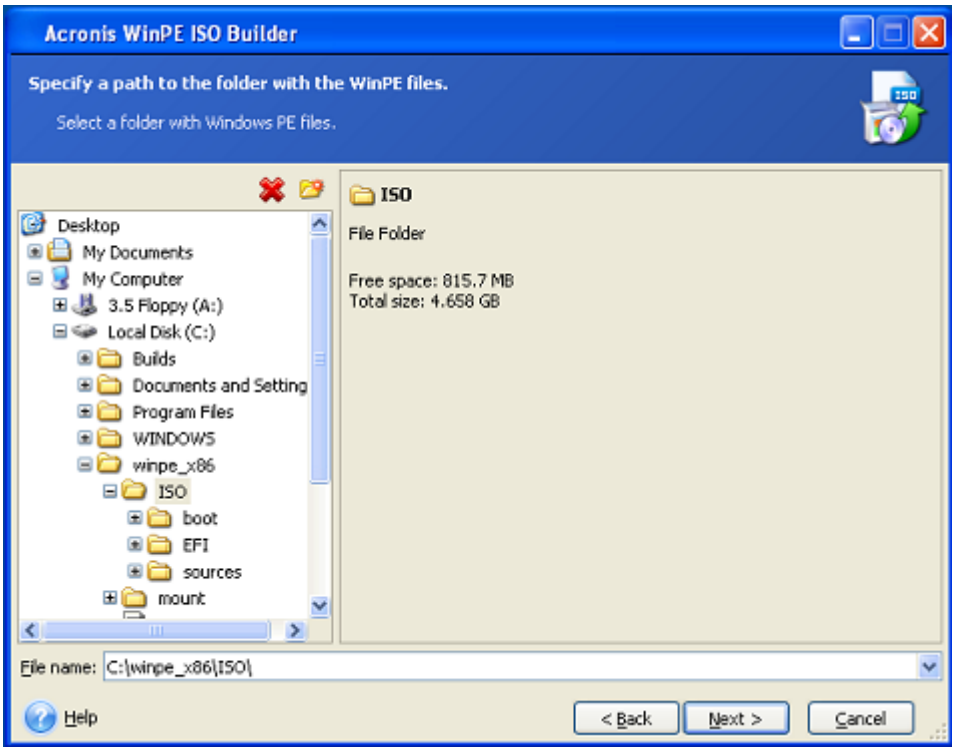
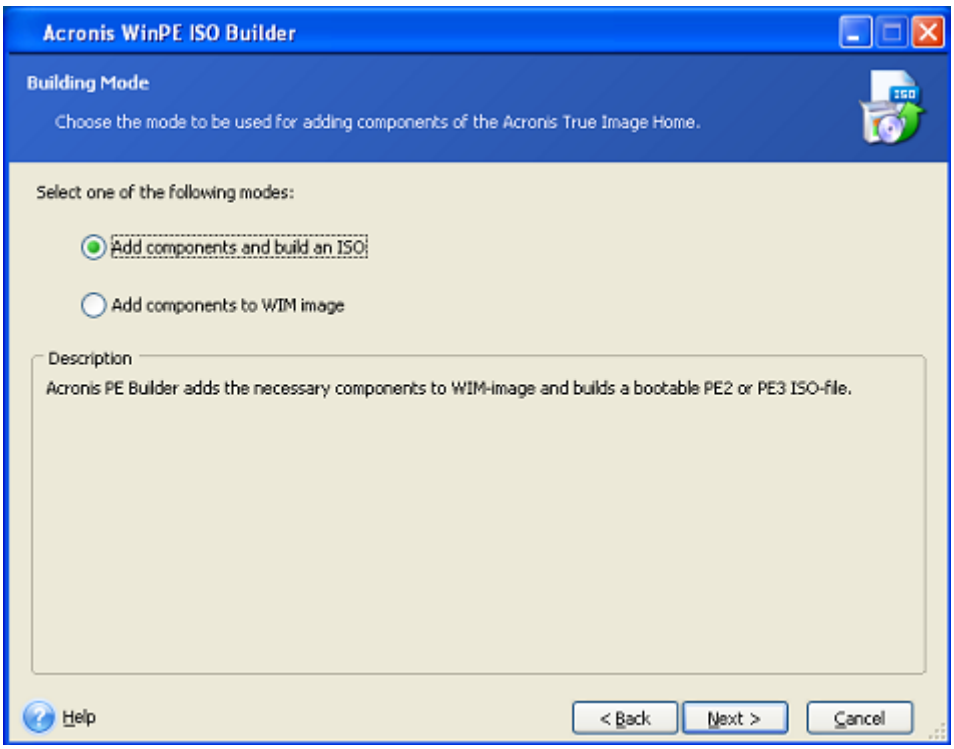
4. Specify the path to the folder WinPE\ISO, e.g. c:\winpe_x86\ISO.



5. On the next screen choose the **Add components and build an ISO** option and click **Next**.


Acronis WinPE ISO Builder
Building Mode
Choose the mode to be used for adding components of the Acronis True Image Home.
Select one of the following modes:
Add components and build an ISO
Add components to WIM image
Description
Acronis PE Builder adds the necessary components to WIM-image and builds a bootable PE2 or PE3 ISO-file.
Help
< Back
Next >
Cancel

6. Specify the full path to the resulting image file including the filename or leave the default path and filename (AcronisMedia.iso).

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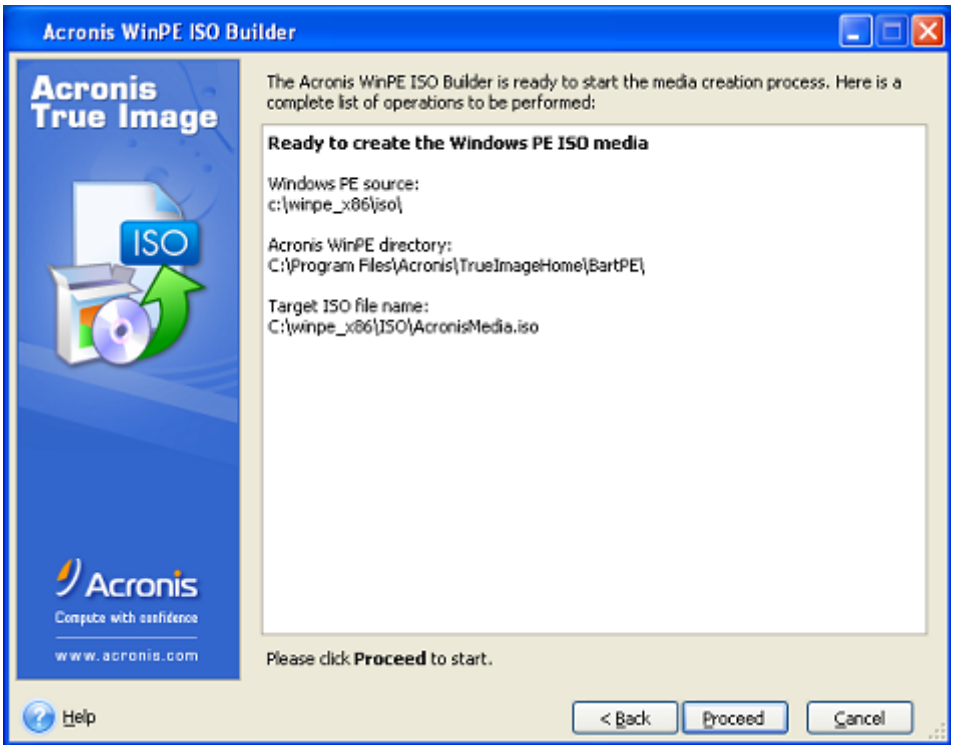
7. Check your settings in the summary screen and click **Proceed**.



8. Burn the .ISO to a CD using a third-party tool (for example, Nero) and you will have a bootable Windows PE disc with True Image 2013.

Once a machine boots into WinPE, True Image 2013 starts automatically. Be aware that startup may take a considerable amount of time.

8.2.3.2 Adding the Acronis Plug-in to the existing WinPE 2.x or 3.0 ISO

To be able to add the Acronis Plug-in, you must first install True Image 2013 Plus Pack on your PC.

1. Unpack all files of your Win PE 2 or 3 ISO to a separate folder on the hard disk.
2. Select **Acronis** -> **True Image 2013 Plus Pack** -> **Acronis WinPE ISO Builder** from the **Start** menu.
3. Specify the path to the folder with the WinPE files.
4. Specify the full path to the resulting ISO file including the filename or leave the default path and filename (AcronisMedia.iso).
5. Check your settings in the summary screen and click **Proceed**.
6. Burn the .ISO to a CD using a third-party tool (for example, Nero) and you will have a bootable Windows PE disc with True Image 2013.

Once the machine boots into WinPE, True Image 2013 starts automatically. Be aware that startup may take a considerable amount of time.

8.2.3.3 Adding the Acronis Plug-in to WinPE 2.x or 3.0 WIM

1. Select **Acronis** → **True Image 2013 Plus Pack** → **Acronis WinPE ISO Builder** from the **Start** menu.
2. Specify the path to the source WINPE.WIM file. The standard path to this file for x86 hardware is \Program Files\Windows AIK\Tools\PETools\X86\winpe.wim.

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3. Specify the full path to the resulting WIM file, including the filename or leave the default path and filename (AcronisMedia.wim).
4. Check your settings in the summary screen and click **Proceed**.

To create a PE image (ISO file) from the resulting WIM file:

1. Select **Microsoft Windows AIK** → **Windows PE Tools Command Prompt** from the **Start** menu.

   Users of Windows 7 should select **Microsoft Windows AIK** → **Deployment Tools Command Prompt** from the **Start** menu.
2. Run the **copype.cmd** script to create a folder with Windows PE files. For example, from a command prompt, type:

   ```
   copype x86 c:\winpe_x86
   ```
3. Replace the default boot.wim file in your Windows PE folder with the newly created WIM file. For the above WIM file creation example with the default path to the newly created WIM file, type:

   ```
   copy c:\Program Files\Windows AIK\Tools\PETools\x86\AcronisMedia.wim
   c:\winpe_x86\ISO\sources\boot.wim
   ```

   Users of Windows 7 should type the following command:

   ```
   move "c:\Program Files\Windows AIK\Tools\PETools\x86\AcronisMedia.wim"
   c:\winpe_x86\ISO\sources\boot.wim
   ```
4. Use the **Oscdimg** tool. To create an ISO file, type:

   ```
   oscdimg -n –bc:\winpe_x86\etfsboot.com c:\winpe_x86\ISO
   c:\winpe_x86\winpe_x86.iso
   ```
5. Burn the .ISO to a CD using a third-party tool (for example, Nero) and you will have a bootable Windows PE disc with True Image 2013.

8.2.3.4 Creating a custom WinPE 3.0 ISO with your drivers

Sometimes a basic WinPE disk with Acronis Plug-in does not have drivers for your specific hardware, for example, for storage device controllers. Users of Windows 7 can add such drivers to the basic WinPE 3.0 image (WIM) before creating an ISO file with Acronis Plig-in.

Attention!

You can only add drivers which have the .inf filename extension.

The following procedure is based on an MSDN article that can be found at http://technet.microsoft.com/en-us/library/dd799244(WS.10).aspx

To create a custom Windows PE image, proceed as follows:

1. Select **Microsoft Windows AIK** -> **Deployment Tools Command Prompt** from the **Start** menu.
2. Run the **copype.cmd** script to create a folder with Windows PE files. For example, from a command prompt, type:

   ```
   copype x86 c:\winpe_x86
   ```
3. Mount the base image by using the DISM tool to a local directory. For example,

   ```
   Dism /Mount-Wim /WimFile:C:\winpe_x86\winpe.wim /index:1
   /MountDir:C:\winpe_x86\mount
   ```
4. Add your hardware driver by using the Dism command with the /Add-Driver option. For example:

   ```
   Dism /image:C:\winpe_x86\mount /Add-Driver /driver:C:\drivers\mydriver.inf
   ```


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5. Repeat Step 4 for all other drivers you need to add.
6. Commit the changes using the Dism command with the /Unmount-Wim /Commit option.

```
Dism /Unmount-Wim /MountDir:C:\winpe_x86\mount /Commit
```

Do not exit the command prompt.

After the custom WIM is created, proceed to adding Acronis Plug-in:

1. Select **Acronis** → **True Image 2013 Plus Pack** → **Acronis WinPE ISO Builder** from the **Start** menu.
2. Specify the path to the created winpe.wim file. In our example the path is C:\winpe_x86\winpe.wim
3. Specify the full path to the resulting WIM file, including the filename or leave the default path and filename (C:\winpe_x86\AcronisMedia.wim).
4. Check your settings in the summary screen and then click **Proceed**.

To create a PE image (ISO file) from the resulting WIM file:

1. Replace the default boot.wim file in your Windows PE folder with the newly created WIM file. For the above WIM file creation example, type:

```
copy C:\winpe_x86\AcronisMedia.wim c:\winpe_x86\ISO\sources\boot.wim
```

2. Use the **Oscdimg** tool. To create an ISO file, type:

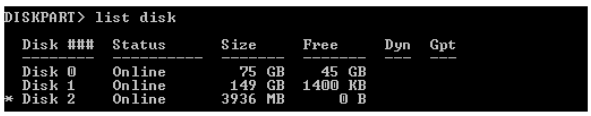
```
oscdimg -n –bc:\winpe_x86\etfsboot.com c:\winpe_x86\ISO
c:\winpe_x86\winpe_x86.iso
```

3. Burn the .ISO to a CD using a third-party tool (for example, Nero) and you will have a bootable Windows PE disc with True Image 2013 and your hardware driver or drivers.

8.2.4 How to prepare a USB flash drive for Acronis Media Builder

If Acronis Media Builder does not recognize the USB flash drive you want to make bootable, prepare the drive as follows:

1. Insert your flash drive into a USB port.
2. Press **Win+R** (or select **Start** -> **Run**) and type **cmd** to open the command line prompt.
3. Type **diskpart** to start Windows DiskPart utility.
4. Type **list disk** to list all disks attached to the machine:


DISKPART> list disk
Disk ### Status Size Free Dyn Gpt
Disk 0 Online 75 GB 45 GB
Disk 1 Online 149 GB 1400 KB
* Disk 2 Online 3936 MB 0 B

Based on the size, we can assume that in the above example the USB memory stick is disk 2.

Take extreme care to get the disk number right. You don't want to wipe the wrong drive!

5. Type **select disk [number]** to select your flash drive.
6. Type **clean** to remove any formatting from the selected disk.
7. Type **create partition primary**.
8. Type **select partition 1** to select the only partition now on the flash drive.
9. Type **active** to mark the partition as active.
10. Type **format quick fs=fat32** to format the disk in FAT32 (otherwise the drive will not be bootable).
11. Type **assign** to assign a drive letter.

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12. Type **exit** to exit Windows DiskPart utility.

8.3 Creating factory bootable media

This functionality is available only if the computer has an Acronis Secure Zone that has a backup of the computer's factory configuration. This backup is normally created in Acronis Secure Zone by a hardware supplier who delivers computers to end users.

Factory bootable media is a special type of rescue bootable media that includes a backup of a computer's factory configuration. You can use such media to restore your computer to factory settings. Note that the restoration will erase all personal data and programs on the computer.

You may have received factory bootable media with your new computer. However, if the hardware supplier did not include this media or if you do not have the media for any other reasons, you can create factory bootable media yourself and save it for an emergency.

With True Image 2013 you can create factory bootable media on a USB stick, CD\DVD or as an ISO image that can be burned to CD\DVD later.

To create factory bootable media:

1. Click **Create factory bootable media** on the **Backup and recovery** tab.

   A dialog window with bootable media parameters opens.
2. Define the parameters of the media.
3. Click **Create**.

   The program starts creating the factory bootable media. If you have selected to burn a CD or DVD, the program will ask you to insert another blank disc once the first disc is burned.

Media creation wizard

Use the wizard to choose the type of media: USB, CD\DVD or ISO image.

If you are creating bootable media on a USB stick, make sure to connect the USB stick to the computer before you begin. The USB stick must be FAT 32 formatted.

If you select to create an ISO image, you also need to specify its parameters:

- **Split into** - Choose whether the program should split the resulting ISO image into multiple .iso files of certain size.
- **Save file(s) to** - Specify the location of the resulting ISO image.

Once you select the media, click **Create** to start creating the media.

8.4 Working with Acronis Secure Zone

The Acronis Secure Zone is a special partition for storing backups on the same computer that created the backup. The current True Image 2013 creates the zone as a FAT32 partition.

When you click **Acronis Secure Zone** on the **Tools and utilities** tab, the program searches for the zone on all local drives. If the zone is found, the wizard will offer to manage it (resize, change the password) or delete it. If there is no zone, you will be prompted to create it.

In this section

Acronis Secure Zone.....183

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Acronis Secure Zone location....184
Selecting partitions....185
Size of Acronis Secure Zone....185
Managing Acronis Secure Zone....186
Acronis Secure Zone summary....188

8.4.1 Acronis Secure Zone

The Acronis Secure Zone is a secure partition that lets you keep backups on a managed machine disk space. This lets you recover a disk where the disk backup resides.

When you create an Acronis Secure Zone, an icon appears under **My Computer** in the **Other** section. Double-clicking on the Acronis Secure Zone icon opens the Secure Zone and you can view all the backups it contains. You can also open the Secure Zone by right-clicking on its icon and choosing **Open** in the shortcut menu.

Double-clicking on a backup icon shows all backup versions (full, incremental, differential) contained in that backup. Right-clicking on a specific backup version opens the shortcut menu allowing you to choose a desired operation. For example, you can choose explore, mount (for image backups), recover, validate, update, remove the backup, and view the backup's details. If Acronis Secure Zone is password-protected, any operation, except viewing backup details, will require entering the password. Double-clicking on a backup will open the backup.

The shortcut menu that appears after right-clicking on the Acronis Secure Zone icon has two more items – **Open** and **Create Shortcut** (for placing it on the Desktop).

The Acronis Secure Zone is available as a location to store backup files as long as it has free space. If there is not enough space, older backups will be deleted to create free space.

True Image 2013 uses the following approach to clean up the Acronis Secure Zone:

- If you are in the process of creating a backup and there is not enough free space in the zone to create it, the program will display a dialog which warns you that the Acronis Secure Zone is full. You can click **Cancel** to cancel the backup operation. In that case, you may want to increase the size of the Acronis Secure Zone and then run the backup operation again. If you want to free up some space in the zone, click **OK** and the oldest full backup version of the type being created will be deleted with all subsequent incremental/differential backup versions. The backup operation will then recommence.
- If deleting the oldest backup does not free up enough space, you will get the same warning message again. You may delete the next oldest backup (if any) and repeat this until all the previous backups are deleted.
- If after deleting all the previous backups there is still not enough space for completing the backup, you will get an error message and the backup will be canceled.

The program distinguishes only two types of backups in the zone: image backups and file-level backups. File and E-mail backups are considered as file-level type backups. For example, if you have an e-mail backup in the zone and there is not enough space for backing up a folder, the program will delete the e-mail backup to free up space for the folder backup.

You can use the Acronis Secure Zone as the storage for virtual system changes in the Try mode. The Try&Decide data will be automatically cleaned up after you stop a Try&Decide session.

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If the Acronis Secure Zone is used as the Nonstop Backup data destination, the program does not clean up such data automatically. You can clean up Nonstop Backup data manually. For more information see Acronis Nonstop Backup data storage (p. 52).

In order to not worry about zone overflow during a scheduled backup, it is recommended to select the **When not enough space in ASZ, delete the oldest backup** box in the scheduled backup options (Error handling).

8.4.2 Acronis Secure Zone location

If you are creating the Acronis Secure Zone, select a disk and its partition whose space will be used to create Acronis Secure Zone. You can also select free or unallocated space of other partitions, if these partitions are located on the selected disk. Note that the Acronis Secure Zone can be located on basic disks only; you cannot create it on dynamic disks and volumes.

To specify a location for the Acronis Secure Zone:

- Click on a hard disk drive to create the Acronis Secure Zone on.
- On the selected hard disk drive, select one or more partitions from which unallocated and/or free space will be taken. The chosen partitions will be resized if necessary to give space to the Acronis Secure Zone.
- Having selected the disk and partitions, click **Next** to proceed to the Size of Acronis Secure Zone (p. 185) step.

To increase/decrease the size of the Acronis Secure Zone:

- Select the partitions from which space will be used to increase the size of the Acronis Secure Zone, or that will receive free space after the size of the Acronis Secure Zone is reduced. You can also select partitions with unallocated space.
- Click **Next** to proceed to the Size of Acronis Secure Zone (p. 185) step.

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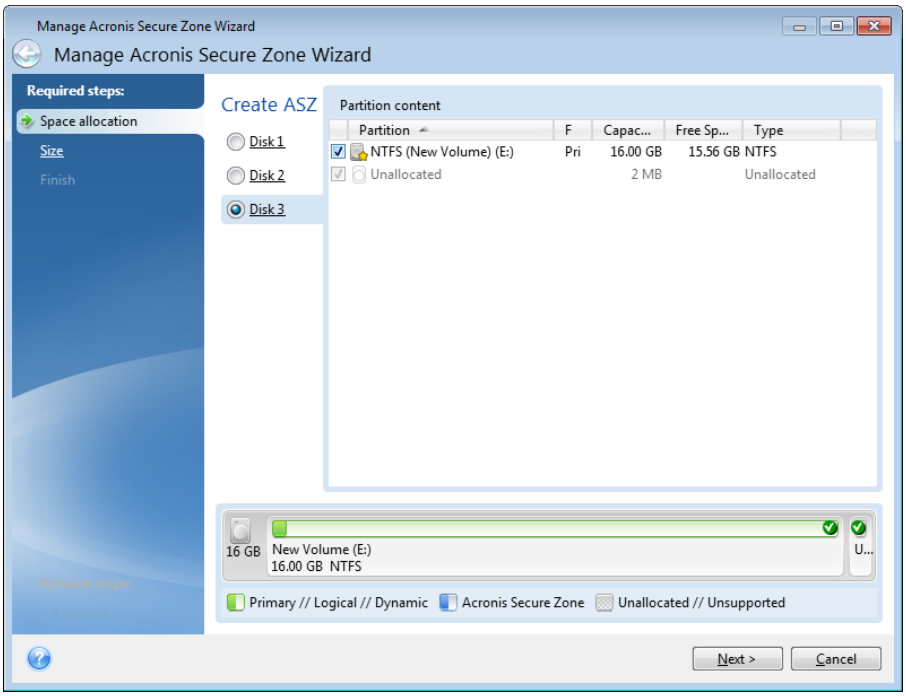
8.4.3 Selecting partitions

Select the partitions from which space will be used to create Acronis Secure Zone. You can also select an unallocated space to create the zone.

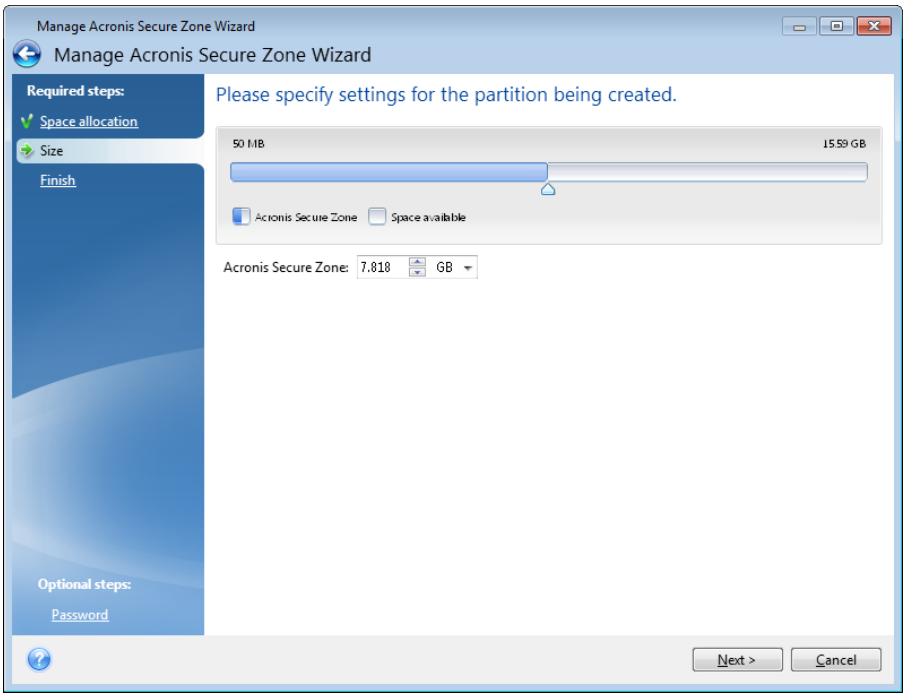


To select a partition:

- Select the appropriate partition check box and click **Next**.

8.4.4 Size of Acronis Secure Zone

You can specify the size of the Acronis Secure Zone.



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The minimum size is about 50 MB, depending on the geometry of the hard disk. The maximum size is equal to the disk's unallocated space plus the total free space on all partitions selected at the previous step.

When creating/enlarging the Acronis Secure Zone, the program will first use the unallocated space. If the unallocated space is not enough to achieve the desired size, the selected partitions will be decreased in size. Resizing of partitions may require the computer to be rebooted.

When reducing the size of the Acronis Secure Zone, if there is any unallocated space on the hard disk, it will be allocated to the selected partitions along with the space freed up from the Acronis Secure Zone. Thus, no unallocated space will remain on the disk.

Please, keep in mind that reducing a system partition to the minimum size may prevent your operating system from booting-up.

To specify the size of the Acronis Secure Zone:

- Drag the slider to the appropriate position or type an exact value into the **Acronis Secure Zone:** size field.

8.4.5 Managing Acronis Secure Zone

You can manage the Acronis Secure Zone.

- Increase size (p. 186) - choose this item if you want to increase the size of the Acronis Secure Zone.
- Decrease size (p. 186) - choose this item if you want to decrease the size of the Acronis Secure Zone.
- Remove (p. 187) - choose this item if you want to remove the Acronis Secure Zone from your hard disk.
- Change password (p. 187) - choose this item if you want to change the password for accessing the Acronis Secure Zone.

8.4.5.1 Increase size

Select the partitions from which space will be used to increase the size of Acronis Secure Zone. An unallocated space also might be selected.

To select a partition:

- Select the appropriate partition's check box then, click **Next**.

8.4.5.2 Decrease size

Select a partition that will receive free space after Acronis Secure Zone is reduced in size. You can also select an unallocated space to reduce the size of the secure zone.

To select a partition:

- Select the appropriate partition's check box then, click **Next**.

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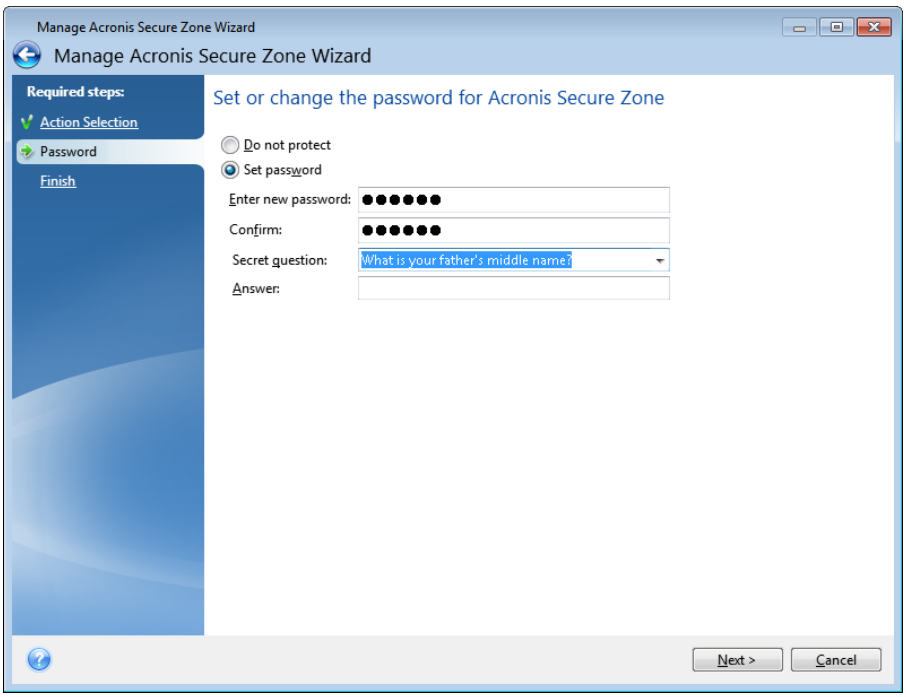
8.4.5.3 Acronis Secure Zone protection

Here, you can set up password protection for the Acronis Secure Zone in order to prevent it from unauthorized access.

The program will ask for the password at any operation relating to the Acronis Secure Zone such as data backup and recovery, mounting images or validating backups in the Acronis Secure Zone, resizing and deleting the Acronis Secure Zone.

Password settings

- **Do not protect** - choose this option, if you do not want to use password protection for the secure zone.
- **Set password** - choose this option, if you need to protect the Acronis Secure Zone with a password.
  - Type the password in the **Password** field.
  - Retype the previously entered password in the **Confirm** field.
  - You can also select a secret question that will be asked in case you forget the password. Select a secret question from the list and enter an answer to it.
- Click **Next** to continue.



True Image 2013 repair or update will not affect the password. However, if the program is removed and then installed again while keeping the Acronis Secure Zone on the disk, the password to the Acronis Secure Zone will be reset.

8.4.5.4 Removing Acronis Secure Zone

Select the partitions to which you want to add the space freed up from Acronis Secure Zone. If you select several partitions, the space will be distributed proportionally to each partition's size.

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To select a partition:

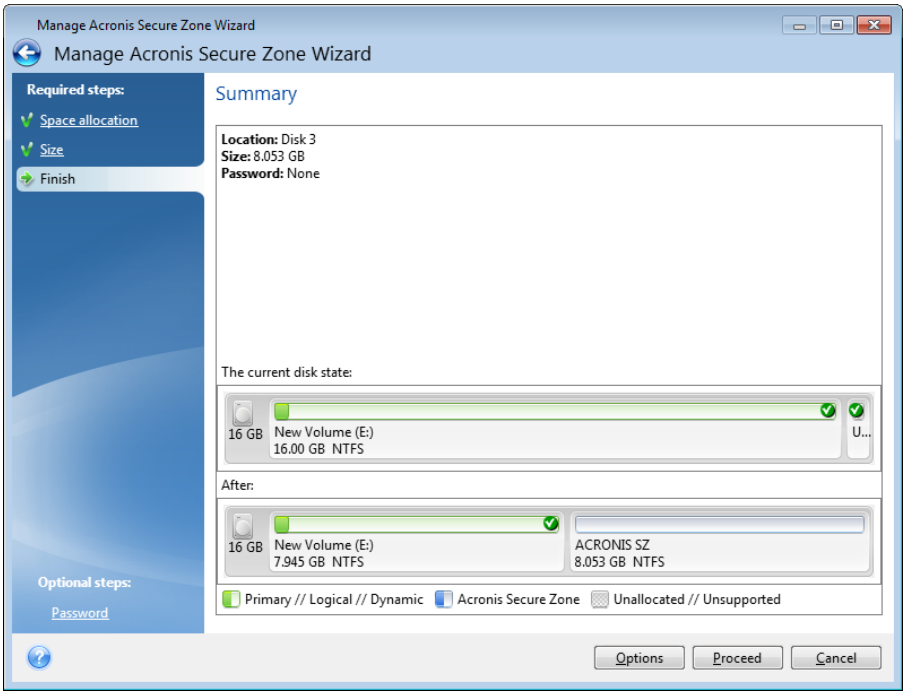
- Select the appropriate partition's check box, then click **Next**.

Acronis Secure Zone can be also removed while uninstalling the program. You will have a choice between uninstallation of the program without removing Acronis Secure Zone and removing software along with Acronis Secure Zone.

Acronis Secure Zone deletion will automatically destroy all backups stored in the zone.

8.4.6 Acronis Secure Zone summary

The Acronis Secure Zone summary window displays a list of operations to be performed. Creating or managing the Acronis Secure Zone operations may require reboot. In that case, after clicking the **Proceed** button you will be asked to confirm the reboot.



Click the **Proceed** button to start the listed operations.

Click the **Options** button if you want to protect Acronis Secure Zone with a password.

Click the **Cancel** button to exit the wizard without performing any operations.

8.5 Cloning a hard disk

In this section

General information.....189
Security.....189
Selecting clone mode.....190
Selecting a source disk.....191
Selecting a destination disk.....192

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Move method.....192
Data migration 193
Manual partitioning 193
Cloning summary 195

8.5.1 General information

You might find that your hard disk does not have enough space for the operating system and installed applications, preventing you from updating your software or installing new applications. In this case, you have to transfer the system to a higher-capacity hard disk.

To transfer the system, you must first install the new disk in the computer. If your computer doesn't have a bay for another hard disk, you can temporarily install it in place of your CD drive or use a USB 2.0 connection to the external target disk. If that is not possible, you can clone a hard disk by creating a disk image and recovering it to a new hard disk with larger partitions.

On program screens, damaged partitions are marked with a red circle and a white cross inside in the upper left corner. Before you start cloning, you should check such disks for errors and correct the errors using the appropriate operating system tools.

For best results, install the target (new) drive where you plan to use it and the source drive in another location, e.g. in an external USB enclosure. This recommendation is especially important for laptops.

We strongly recommend that you create a backup of the entire original disk as a safety precaution. It could be your data saver if something goes wrong with your original hard disk during cloning. For information on how to create such a backup see see Backing up partitions and disks. After creating the backup, make sure that you validate it.

To clone a disk:

- Click **Clone disk** on the **Tools and utilities** tab of the Home screen.
- Follow the **Disk Clone Wizard** steps.

8.5.2 Security

Please note the following: if the power goes off or you accidentally press **RESET** during the transfer, the procedure will be incomplete and you will have to partition and format or clone the hard disk again.

No data will be lost because the original disk is only being read (no partitions are changed or resized). The system transfer procedure does not alter the original disk at all. After the procedure finishes, you might want to format the old disk or securely wipe the data it contains. Use Windows tools or Acronis DriveCleanser for these tasks.

Nevertheless, we do not recommend that you delete data from the old disk until you are sure it is correctly transferred to the new disk, the computer boots up from it and all applications work.

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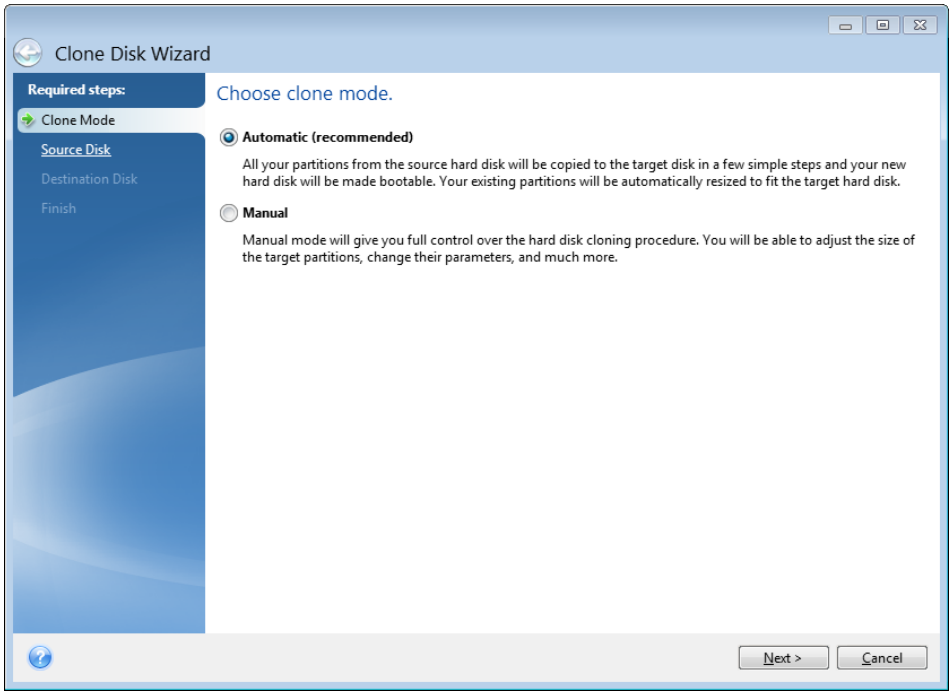
8.5.3 Selecting clone mode

There are two transfer modes available:


Clone Disk Wizard
Required steps:
Clone Mode
Source Disk
Destination Disk
Finish
Choose clone mode.
Automatic (recommended)
All your partitions from the source hard disk will be copied to the target disk in a few simple steps and your new hard disk will be made bootable. Your existing partitions will be automatically resized to fit the target hard disk.
Manual
Manual mode will give you full control over the hard disk cloning procedure. You will be able to adjust the size of the target partitions, change their parameters, and much more.
Next >
Cancel

- **Automatic** (recommended in most cases). In automatic mode, you will only have to take several simple actions to transfer all the data, including partitions, files and folders, to a newer disk, making it bootable if the original disk was bootable.
- **Manual**. Manual mode will provide more data transfer flexibility. Manual mode can be useful if you need to change the disk partition layout.

If the program finds two disks, one partitioned and another unpartitioned, it will automatically recognize the partitioned disk as the source disk and the unpartitioned disk as the destination disk. In such case, the next steps will be bypassed and you will be taken to the cloning Summary screen.

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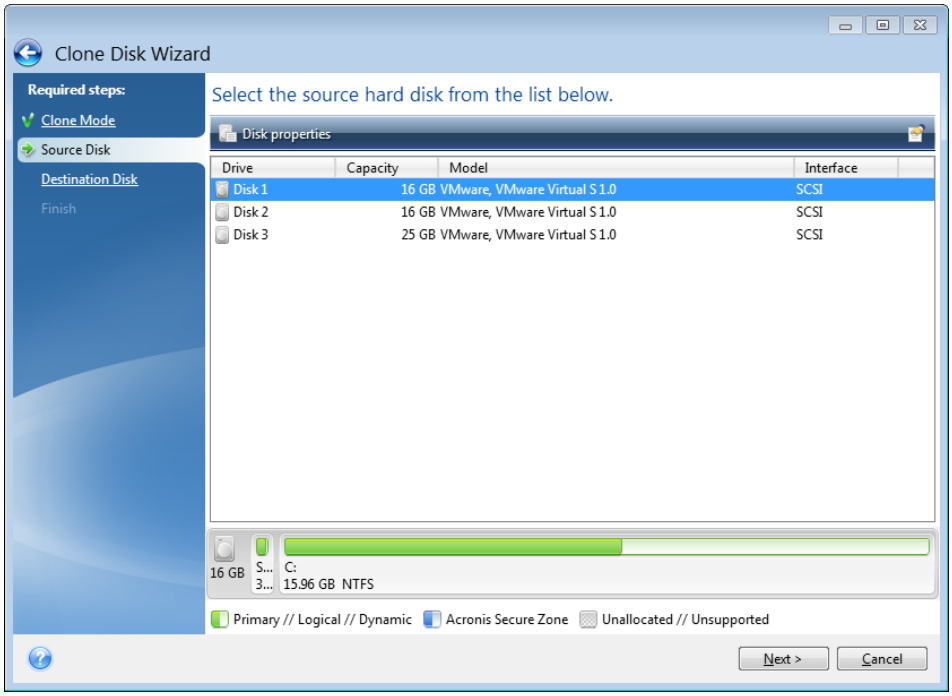
8.5.4 Selecting a source disk

You can determine the source and destination using the information provided in this window (disk number, capacity, label, partition and file system information). If the program finds several partitioned disks, it will ask you which is the source (i.e. the older data disk).



True Image 2013 does not support cloning of dynamic disks.

- Select the source disk and click **Next** to continue.

Viewing disk and partition information

- Columns - selects the columns to display. You can change the width of a column by dragging its borders with the mouse.
- Disk properties (duplicated in the context menu, opened by right-clicking objects) - displays the selected partition or disk properties window.

  This window contains two panels. The left panel contains the properties tree and the right one describes the selected property in detail. The disk information includes its physical parameters (connection type, device type, size, etc.); partition information includes both physical (sectors, location, etc.), and logical (file system, free space, assigned letter, etc.) parameters.

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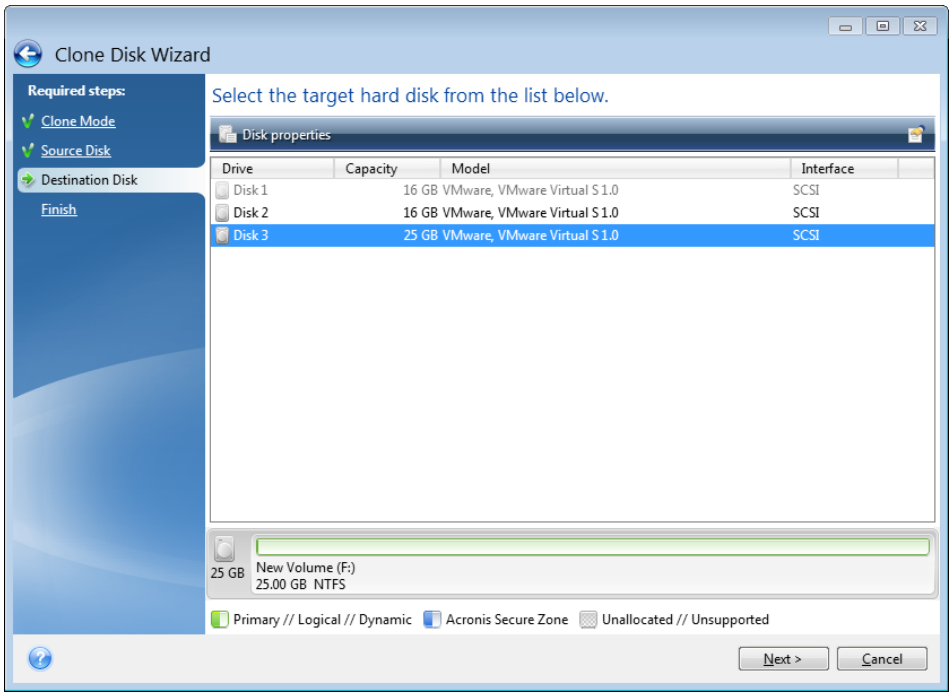
8.5.5 Selecting a destination disk

After you select the source disk, you have to select the destination where the disk information will be copied to. The previously selected source becomes grayed-out and disabled for selection.



- Select the destination disk and click **Next** to continue.

At this point, the program checks to see if the destination disk is free. If not, you will be prompted by the Conformation window stating that the destination disk contains partitions, perhaps with useful data. To confirm deletion of the partitions, click **OK**.

*Note that no real changes or data destruction will be performed at this time! For now, the program will just map out cloning. All changes will be implemented only when you click **Proceed**.*

If any disk is unpartitioned, the program will automatically recognize it as the destination and bypass this step.

8.5.6 Move method

When you select the manual cloning mode, True Image 2013 will offer you the following data move methods:

- **As is** - a new partition will be created for every old one with the same size and type, file system and label. The unused space will become unallocated.
- **Proportional** - the new disk space will be proportionally distributed between cloned partitions

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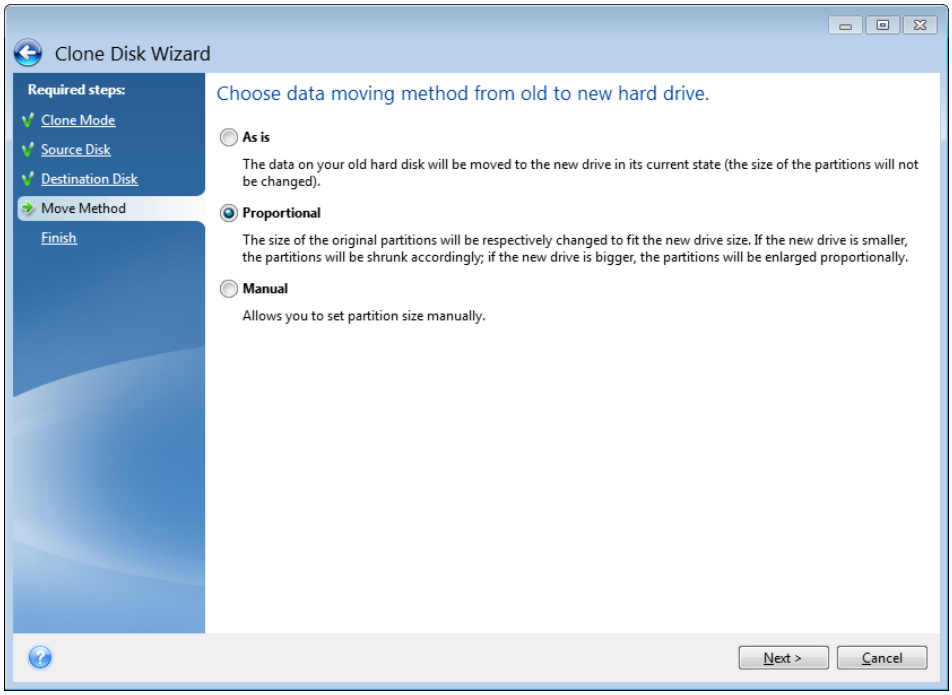
- **Manual** - you will specify a new size and other parameters yourself


Clone Disk Wizard
Required steps:
Clone Mode
Source Disk
Destination Disk
Move Method
Finish
Choose data moving method from old to new hard drive.
As is
The data on your old hard disk will be moved to the new drive in its current state (the size of the partitions will not be changed).
Proportional
The size of the original partitions will be respectively changed to fit the new drive size. If the new drive is smaller, the partitions will be shrunk accordingly; if the new drive is bigger, the partitions will be enlarged proportionally.
Manual
Allows you to set partition size manually.
Next >
Cancel

If you elect to transfer information "as is," a new partition will be created for every old one with the same size and type, file system and label. The unused space will become unallocated. Afterwards, you will be able to use the unallocated space to create new partitions or to enlarge the existing partitions with special tools, such as Acronis Disk Director Suite.

As a rule, "as is" transfers are not recommended as they leave a lot of unallocated space on the new disk. Using the "as is" method, True Image 2013 transfers unsupported and damaged file systems.

If you transfer data proportionally, each partition will be enlarged, according to the proportion of the old and new disk capacities.

FAT16 partitions are enlarged less than others, as they have a 4GB size limit.

Depending on the selected combination, you will proceed to either the cloning summary window, or the Change disk layout step (see below).

8.5.7 Data migration

True Image 2013 allows you to select a partition layout for a target disk after clone operation completion.

8.5.8 Manual partitioning

The manual transfer method enables you to resize partitions on the new disk. By default, the program resizes them proportionally.

This window displays rectangles indicating the source hard disk, including its partitions and unallocated space, as well as the new disk layout.

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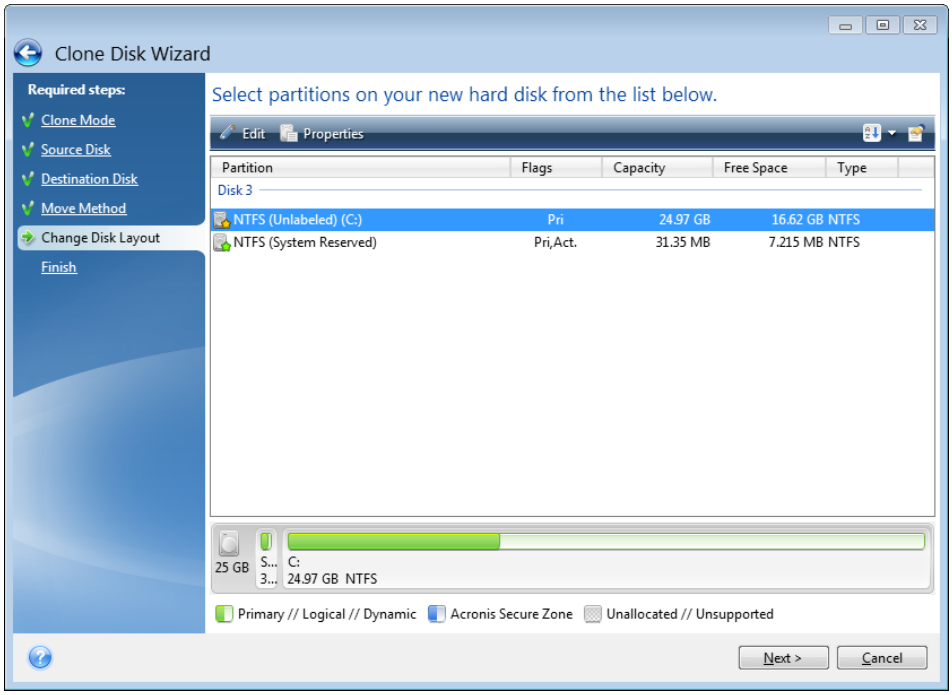
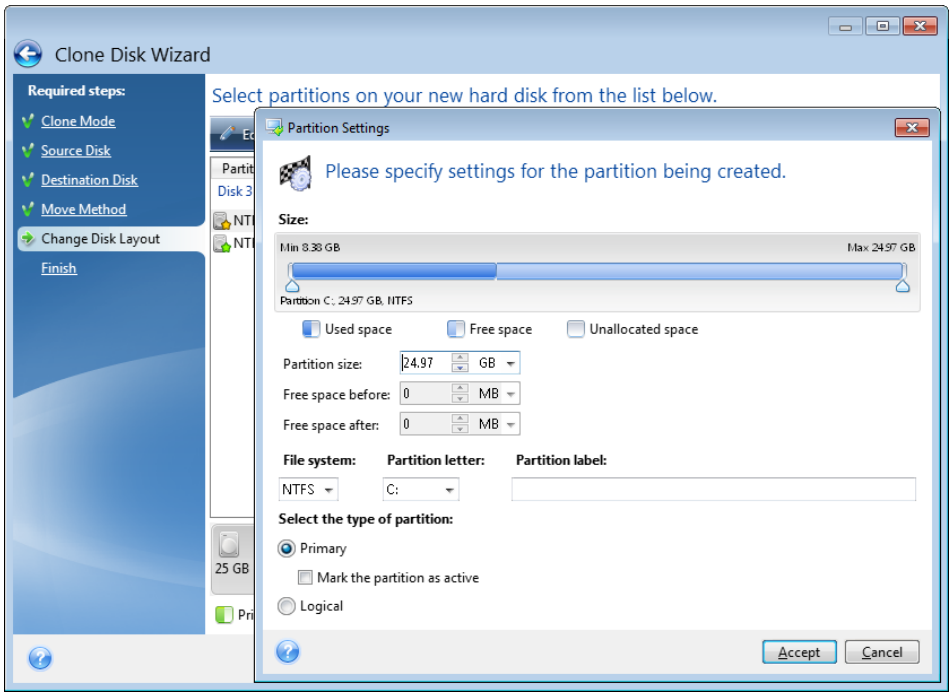
Along with the hard disk number, you can see disk capacity, the label, volume and file system information. Different volume types, including primary, logical and unallocated space are marked with different colors.



To resize, change the volume type, change the label of the existing volume, right click on it, and select **Edit** in the shortcut menu. This will open the Partition Settings window.



You can do this by entering values in the **Free space before**, **Partition size**, **Free space after** fields, by dragging partition borders or the partition itself.

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If the cursor turns into two vertical lines with left and right arrows, it is pointed at the partition border and you can drag it to enlarge or reduce the partition's size. If the cursor turns into four arrows, it is pointed at the partition, so you can move it to the left or right (if there's unallocated space near it).

Having provided the new location and size, click **Accept**. You will be taken back to the Change disk layout window. You might have to perform some more resizing and relocation before you get the layout you need.

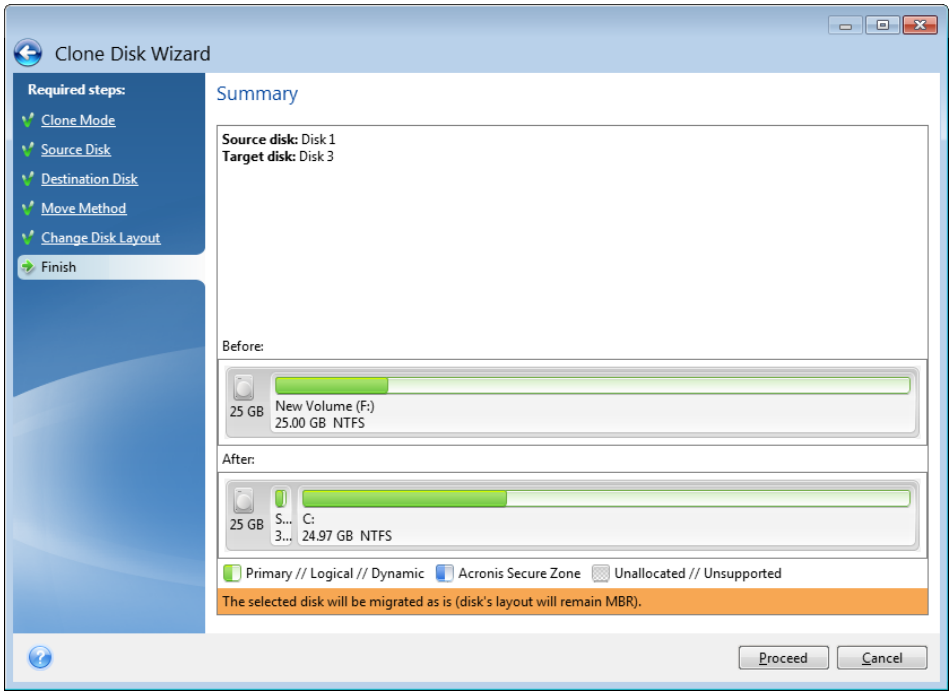
By clicking **Next** you will proceed to the Cloning summary window.

Be careful!

Clicking any previous wizard step on the sidebar in this window will reset all size and location changes that you've selected, so you will have to specify them again.

8.5.9 Cloning summary

The cloning summary window graphically (as rectangles) illustrates information about the source disk (partitions and unallocated space) and the destination disk layout. Along with the disk number, some additional information is provided: disk capacity, label, partition and file system information.



- Click **Proceed** to start disk cloning.
- Click **Cancel** to cancel the procedure and quit to the main program window.

Cloning a disk containing the currently active operating system will require a reboot. In that case, after clicking **Proceed** you will be asked to confirm the reboot. Canceling the reboot will cancel the entire procedure. After the clone process finishes you will be offered an option to shut down the computer by pressing any key. This enables you to change the position of master/slave jumpers and remove one of the hard drives.

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Cloning a non-system disk or a disk containing an operating system, but one that is not currently active, will proceed without the need to reboot. After you click **Proceed**, True Image 2013 will start cloning the old disk to the new disk, indicating the progress in a special window. You can stop this procedure by clicking **Cancel**. In that case, you will have to repartition and format the new disk or repeat the cloning procedure. After the cloning operation is complete, you will see the results message.

8.6 Adding a new hard disk

If you do not have enough space for your data (e.g. family photos and videos), you can either replace the old disk with a new higher-capacity one (data transfers to new disks are described in the previous chapter), or add a new disk only to store data, leaving the system on the old disk. If the computer has a bay for another disk, it would be easier to add a disk drive than to clone one.

To add a new disk, you must first install it in your PC.

To add a new hard disk:

- Click the **Tools and utilities** tab and then click **Add new disk**
- Follow the Add new disk Wizard steps

*If you use a 32-bit version of Windows XP, the wizard will not have the **Initialization options** step because this operating system does not support GPT disks.*

In this section

Selecting a hard disk 196
Selecting initialization method 198
Creating new partitions.....198
Add new disk summary.....201

8.6.1 Selecting a hard disk

Select the disk that you have added to the computer. If you have added several disks, select one of them and click **Next** to continue. You can add the other disks later by restarting the Add New Disk Wizard.

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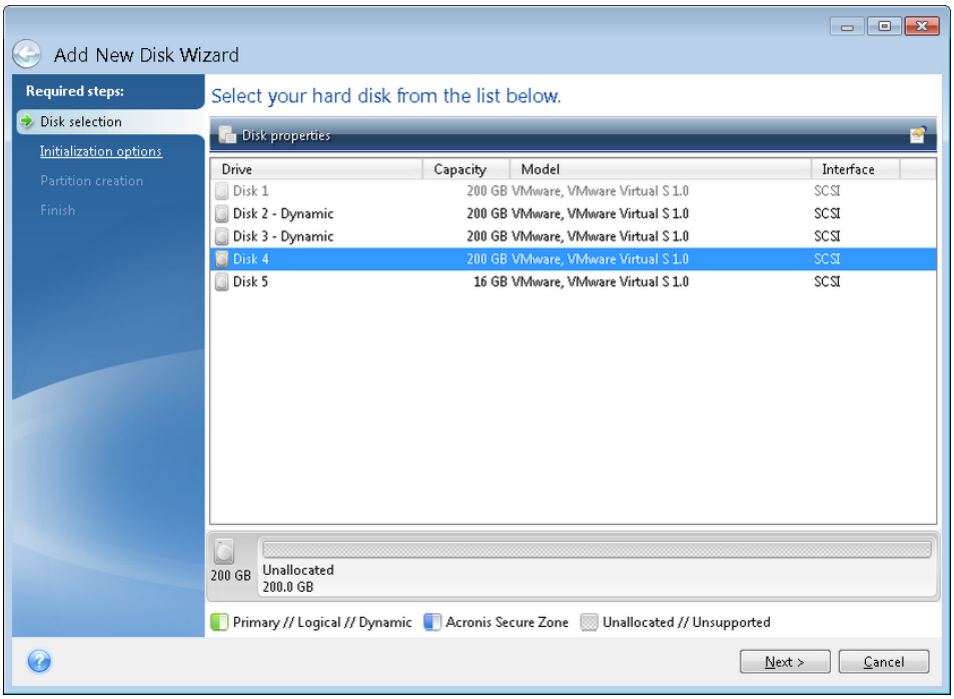
*If there are any partitions on the new disk, they must be deleted first. If the added disk contains partitions, True Image 2013 will warn you by displaying the warning message. Click **OK** to delete the existing partitions on the added disk.*


Add New Disk Wizard
Required steps:
Disk selection
Initialization options
Partition creation
Finish
Select your hard disk from the list below.
Disk properties
Drive
Capacity
Model
Interface
Disk 1 200 GB VMware, VMware Virtual S 1.0 SCSI
Disk 2 - Dynamic 200 GB VMware, VMware Virtual S 1.0 SCSI
Disk 3 - Dynamic 200 GB VMware, VMware Virtual S 1.0 SCSI
Disk 4 200 GB VMware, VMware Virtual S 1.0 SCSI
Disk 5 16 GB VMware, VMware Virtual S 1.0 SCSI
200 GB
Unallocated
200.0 GB
Primary // Logical // Dynamic
Acronis Secure Zone
Unallocated // Unsupported
Next >
Cancel

You can also see the properties of all the hard disks installed in your system, for example, the name and the model of the selected disk drive, its capacity, file system and its interface.

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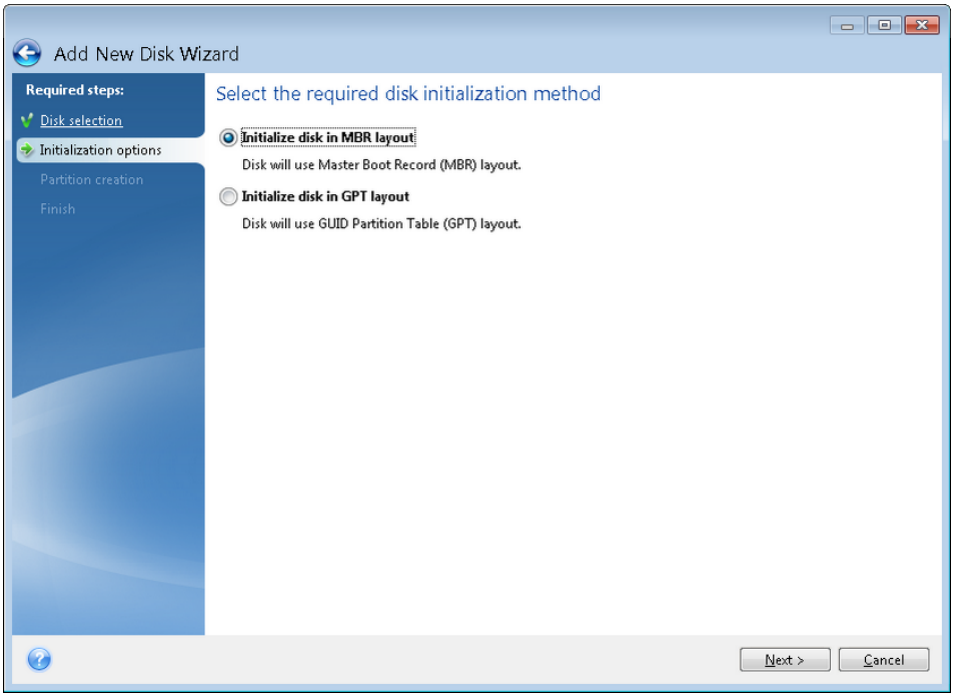
8.6.2 Selecting initialization method

True Image 2013 supports both MBR and GPT partitioning. GUID Partition Table (GPT) is a new hard disk partitioning method providing advantages over the old MBR partitioning method. If your operating system supports GPT disks, you can select the new disk to be initialized as a GPT disk.



- To add a GPT disk, click **Initialize disk in GPT layout**.
- To add an MBR disk, click **Initialize disk in MBR layout**.

*If you use a 32-bit version of Windows XP, the GPT initialization method will be unavailable and the **Initialization options** step will be absent.*

After selecting the required initialization method click **Next**.

8.6.3 Creating new partitions

To use the space on a hard disk, it must be partitioned. Partitioning is the process of dividing the hard disk's space into logical divisions. Each logical division may function as a separate disk with an assigned drive letter, its own file system, etc. Even if you do not intend to divide your hard disk into logical divisions it must be partitioned so that the operating system knows that it is intended to be left in one piece.

Initially, all disk space will be unallocated. This will change after you add new partitions.

To create a new partition:

- Select the unallocated space and click **Create new partition** in the upper part of the window, or right click on the unallocated space, and select **Create new partition** in the shortcut menu.
- Specify the following settings for the partition being created:
  - the size of the new partition,
  - file system of the new partition,
  - partition type (available only for MBR disks),

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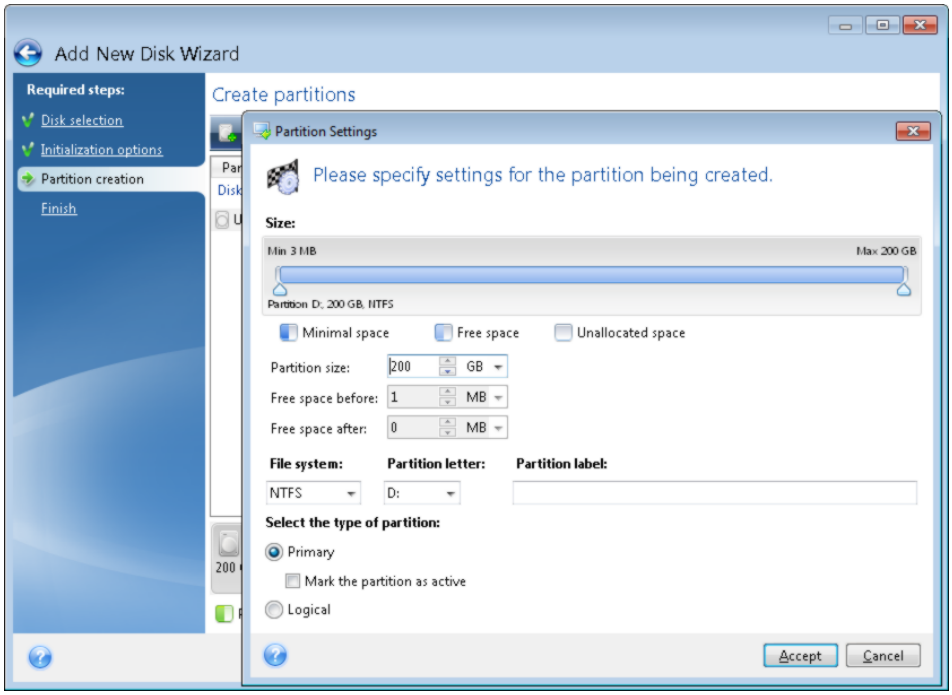
- partition letter and label.



If you allocate all unallocated space on the disk to the new partition, the **Create new partition** button disappears.

8.6.3.1 Partition settings

Specify the settings for the partition being created.

Size

You can resize and relocate the partition being created.

If you want to resize the partition:

- Point the cursor at the partition border. If the cursor is pointed exactly at the partition border, it will change into two vertical lines with arrows on each side.
- Hold down the left mouse button and drag the selected partition border to enlarge or reduce the partition size.

You can also set the size of the partition manually, by typing-in the desired partition size in the **Partition Size** field.

If you want to relocate the partition:

- Point the cursor at the partition. The cursor will change into a crosshair.
- Hold down the left mouse button and drag the partition until you get the necessary size of the **Free space before** and/or **Free space after** fields. You can also set the amount of unallocated space before or after the selected partition by manually typing-in the necessary value in the respective fields.

If you create one or more logical drives, the program will reserve some unallocated space for system needs in front of the created partition(s). If you create a primary partition or a primary partition together with a logical one then no unallocated space will be reserved for system needs.

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File System

Choose the file system type for the partition being created. Different partitions may have different type of file system.

You can either leave the partition unformatted, or choose between the following file system types:

- **NTFS** is a Windows NT, Windows 2000, Windows XP, Windows Vista, and Windows 7 native file system. Choose it if you use these operating systems. Note, that Windows 95/98/Me and DOS cannot access NTFS partitions.
- **FAT 32** is an improved 32-bit version of the FAT file system that supports volumes up to 2 TB.
- **FAT 16** is a DOS native file system. Most operating systems recognize it. However, if your disk drive is more than 4 GB, it is not possible to format it in FAT16.
- **Ext2** is a Linux native file system. It is fast enough, but it is not a journaling file system.
- **Ext3** – officially introduced with Red hat Linux version 7.2, Ext3 is a Linux journaling file system. It is forwards and backwards compatible with Linux Ext2. It has multiple journaling modes, as well as broad, cross platform compatibility in both 32-bit and 64-bit architectures.
- **Ext4** is a new Linux file system. It has improvements in comparison to ext3. It is fully backward compatible with ext2 and ext 3. However, ext3 has only partial forward compatibility with ext4.
- **ReiserFS** is a journaling file system for Linux. Generally it is more reliable and faster than Ext2. Choose it for your Linux data partition.
- **Linux Swap** is a swap partition for Linux. Choose it if you want to add more swap space using Linux

Partition letter

Select a letter to be assigned to the partition being created from the drop-down list. If you select **Auto**, the program assigns the first unused drive letter in alphabetical order.

Partition label

Partition label is a name, assigned to a partition so that you can easily recognize it. For example, one could be called System — a partition with an operating system, Program — an application partition, Data — a data partition, etc. Partition label is an optional attribute.

Partition type (these settings are available only for MBR disks)

Choose the type of partition to be created. You can define the new partition as primary or logical.

- **Primary** - choose this parameter if you are planning to boot from this partition. Otherwise, it is better to create a new partition as a logical drive. You can have only four primary partitions per drive, or three primary partitions and one extended partition.

  Note: If you have several primary partitions, only one will be active at a time, the other primary partitions will be hidden and won't be seen by the OS.

  - **Mark the partition as active** - an active partition is used for loading an operating system. Selecting Active for a partition without an installed operating system could prevent your computer from booting.
- **Logical** - choose this parameter if you don't intend to install and start an operating system from the partition. A logical drive is part of a physical disk drive that has been partitioned and allocated as an independent unit, but functions as a separate drive.

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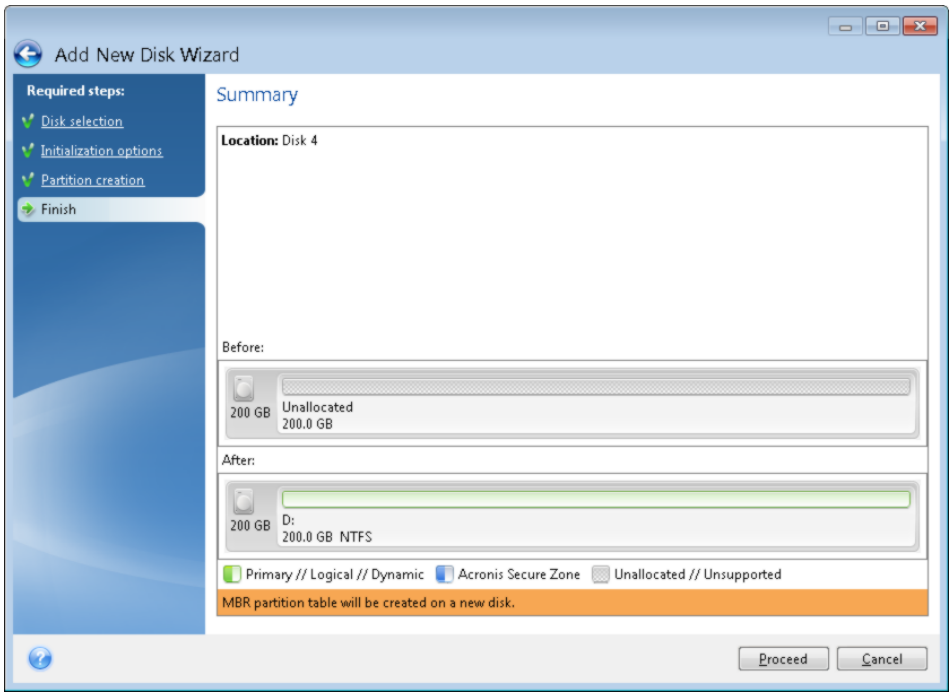
When you finish to specify the settings for the partition being created, click **Accept** to continue.

8.6.4 Add new disk summary

The Add new disk summary graphically (as rectangles) illustrates information about the new disk layout before and after partitioning.



- Click **Proceed** to start creating new partition(s).
- Click **Cancel** to cancel the procedure and quit to the main program window.

After you click **Proceed**, True Image 2013 starts creating new partition or partitions, indicating the progress in a special window. If you stop this procedure by clicking **Cancel**, you will have to repartition and format the new disk or repeat the disk add procedure.

*Before clicking the **Proceed** button you can use the sidebar to navigate through the **Add New Disk Wizard** steps and make changes.*

8.7 Acronis Extended Capacity Manager

The Acronis Extended Capacity Manager allows your operating system support large capacity disks with the MBR partition style. You are able to use the disk space beyond 2 TB. This free space will be recognized as a separate disk, and will be usable by your operating system and applications as if it was a regular physical hard disk.

Acronis Extended Capacity Manager wizard displays all hard disks larger than 2 TB (unallocated or with MBR partition style). You can see the disk space which Windows recognizes and allocates. This space is called Windows Native Capacity in the wizard.

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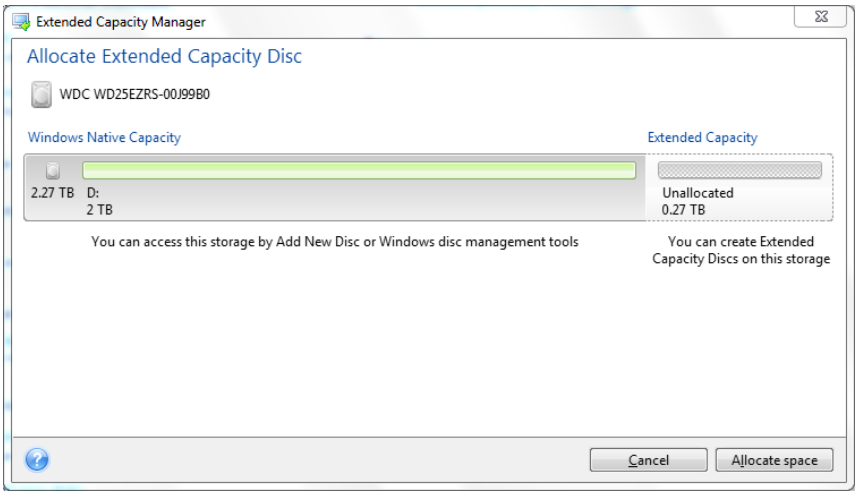
The space beyond 2 TB is displayed as Extended Capacity. You can enable Extended Capacity Disks, and once it is done, this space becomes visible to the operating system and ready for disk management operations.

1. To start Acronis Extended Capacity Manager, select the **Tools and utilities** tab and then click **Acronis Extended Capacity Manager**.

   If the program does not find any MBR disks with a capacity of more than 2 TB, it displays a message that the entire disk space is accessible and you do not need to use Acronis Extended Capacity Manager.

2. Acronis Extended Capacity Manager shows the Extended Capacity available for allocation.



3. Click **Allocate space** to see the possible disk space allocation in the next step.

   After clicking the **Apply** button, an Extended Capacity Disk will be emulated on your physical disk. If your physical disk's capacity is more than 4 TB and your operating system does not support the GPT partition style, the program creates several MBR Extended Capacity Disks.

   Note that Extended Capacity Disks are not bootable, though most of their properties are the same as that of physical disks.

4. Click **Close** to exit the Acronis Extended Capacity Manager.

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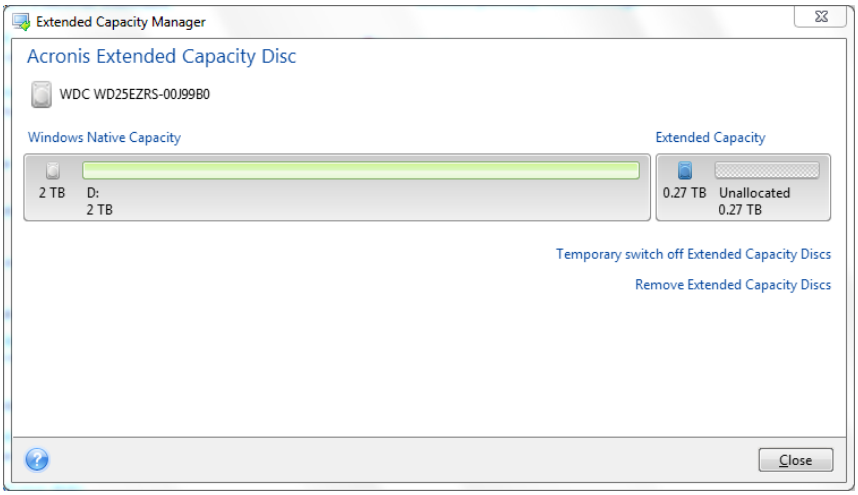
After allocating the space, you can temporarily switch off the Extended Capacity Disks by clicking **Temporary switch off Extended Capacity Disks**. This makes the Extended Capacity Disks invisible for disk management tools, though the disk space will remain allocated and you will be able to make these partitions visible again later. To do this, start the Acronis Extended Capacity Manager and then click **Allocate space**.



To remove the Extended Capacity Disks, click **Remove Extended Capacity Disks** and then click the **Apply** button in the next step. These disks will be removed from your system, and the disk space beyond 2 TB will become inaccessible. To allocate this space later, you need to start the Extended Capacity Manager again and then repeat the wizard's steps.

You will be able to continue using the Extended Capacity Disks even after uninstalling True Image 2013. During uninstallation, you will be asked whether you want to remove the Extended Capacity Disk. If you choose not to remove the disk, it will remain usable.

8.7.1 If Acronis Extended Capacity Manager does not start

Acronis Extended Capacity Manager may not start because one of the following reasons:

- your system does not contain hard drives with MBR partition style larger than 2 TB - you can allocate and manage the entire space on your hard drives with **Add New Disk** tool;
- your system contains large size disks, but they are not initialized yet;
- sector's size on your disk is larger than 512 kB.

8.8 Security and Privacy Tools

True Image 2013 contains utilities for secure destruction of data on an entire hard disk drive, and individual partitions. It can also erase individual files and eliminate traces of user system activity.

When replacing your old hard drive with a new, higher-capacity one, you may accidentally leave personal and confidential information on the old disk. This information could be retrieved even if you have reformatted the disk.

The Acronis DriveCleanser provides for the destruction of confidential information on hard disk drives and/or partitions with the help of techniques that meet or exceed most national and state standards. You can select an appropriate data destruction method depending on the importance of your confidential information.

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The File Shredder provides the same capabilities for individual files and folders.

Finally, the System Clean-up wizard ensures elimination of all of the traces of your computer activities When working on a PC, you leave thousands of bytes of evidence showing your actions. You may not even be aware of these traces. This could include user names and passwords, as well as other personal information that could be used to steal your identity if it fell into the wrong hands. This utility wipes them all completely away from the disk drive.

The data destruction methods are described in detail in Hard Disk Wiping methods (p. 219) of this guide.

In this section

Acronis DriveCleanser 204
File shredder 211
System Clean-up 213
Hard Disk Wiping methods 219

8.8.1 Acronis DriveCleanser

Many operating systems do not provide users with secure data destruction tools, so deleted files can be recovered easily by using simple applications. Even a complete disk reformat cannot guarantee permanent confidential data destruction.

Acronis DriveCleanser solves this problem with guaranteed and permanent data destruction on selected hard disks and partitions. You can select from a number of data destruction algorithms depending on the importance of your confidential information.

Be aware that, depending on the total size of selected partitions and the selected data destruction algorithm, the data destruction may take many hours.

Working with Acronis DriveCleanser

With Acronis DriveCleanser you can perform the following:

- Clean up the selected hard disks or partitions using preset algorithms.
- Create and execute custom user algorithms of hard disk clean-up.

Acronis DriveCleanser is based on a wizard that **scripts** all hard disk operations, so no data destruction is performed until you click **Proceed** in the wizard's Summary window. At any moment, you can return to the previous steps to select other disks, partitions or data destruction algorithms.

To permanently destroy data on your disk:

- Click the **Tools and utilities** tab, and then click **Acronis DriveCleanser**.
- Follow the Acronis DriveCleanser wizard steps.

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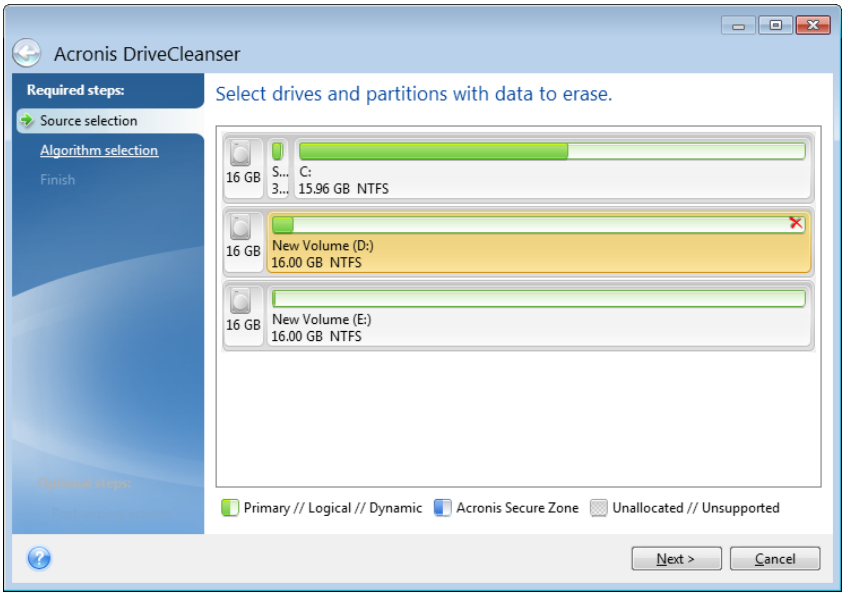
8.8.1.1 Data selection

First, you must select the hard disk partitions where you want to destroy data.



To select a partition, click the corresponding rectangle. You will see a red mark in the upper right corner indicating that the partition is selected.

You can select an entire hard disk or several disks for data destruction. To do this, click the rectangle corresponding to the hard disk (with a device icon, disk number and capacity).

You can simultaneously select several partitions located on different hard disk drives or on several disks, as well as unallocated space on disks.

*Acronis DriveCleanser cannot wipe partitions on dynamic and GPT disks, so they will not be shown in the **Source selection** window.*

Click **Next** to continue.

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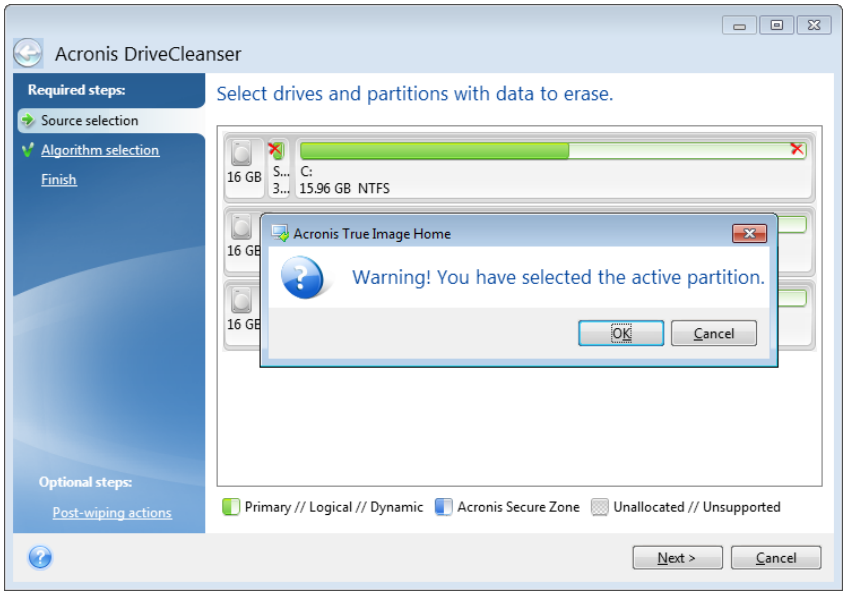
If the disks and/or partitions you have selected include the system disk or partition, you will see a warning window.

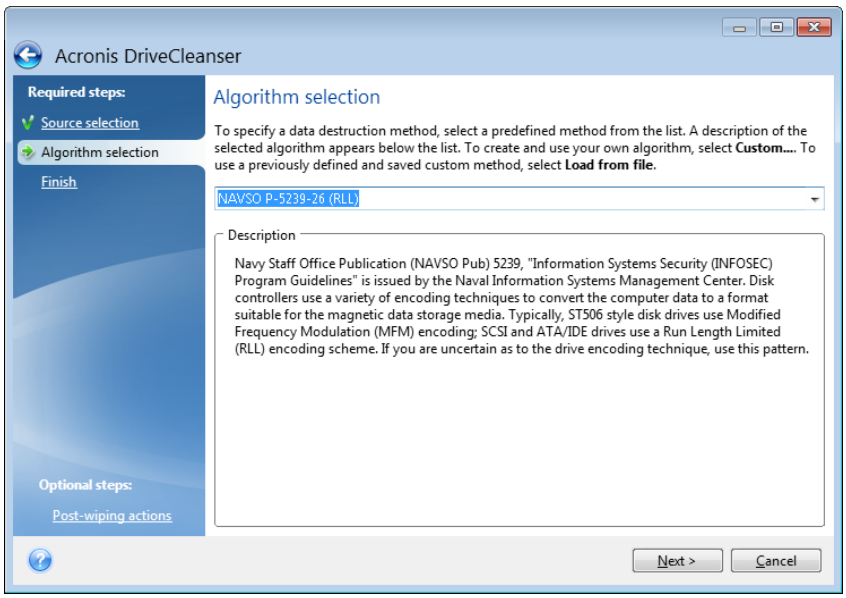


Be careful, because clicking **OK** in this warning window and then **Proceed** in the Summary window will result in wiping the system partition containing your Windows operating system.

8.8.1.2 Algorithm selection

Acronis DriveCleanser utilizes a number of the most popular data destruction algorithms. Select the desired algorithm from the drop-down list.

The data destruction methods are described in detail in Hard Disk Wiping Methods (p. 219) of this guide.


Acronis DriveCleanser
Required steps:
Source selection
Algorithm selection
Finish
Optional steps:
Post-wiping actions
Algorithm selection
To specify a data destruction method, select a predefined method from the list. A description of the selected algorithm appears below the list. To create and use your own algorithm, select Custom.... To use a previously defined and saved custom method, select Load from file.
NAVSO P-5239-26 (RLL)
Description
Navy Staff Office Publication (NAVSO Pub) 5239, "Information Systems Security (INFOSEC) Program Guidelines" is issued by the Naval Information Systems Management Center. Disk controllers use a variety of encoding techniques to convert the computer data to a format suitable for the magnetic data storage media. Typically, ST506 style disk drives use Modified Frequency Modulation (MFM) encoding; SCSI and ATA/IDE drives use a Run Length Limited (RLL) encoding scheme. If you are uncertain as to the drive encoding technique, use this pattern.
Next >
Cancel

After you select an algorithm, Acronis DriveCleanser will perform all the actions necessary to destroy the contents of the selected partition or disk. After this is done, you will see a message indicating successful data destruction.

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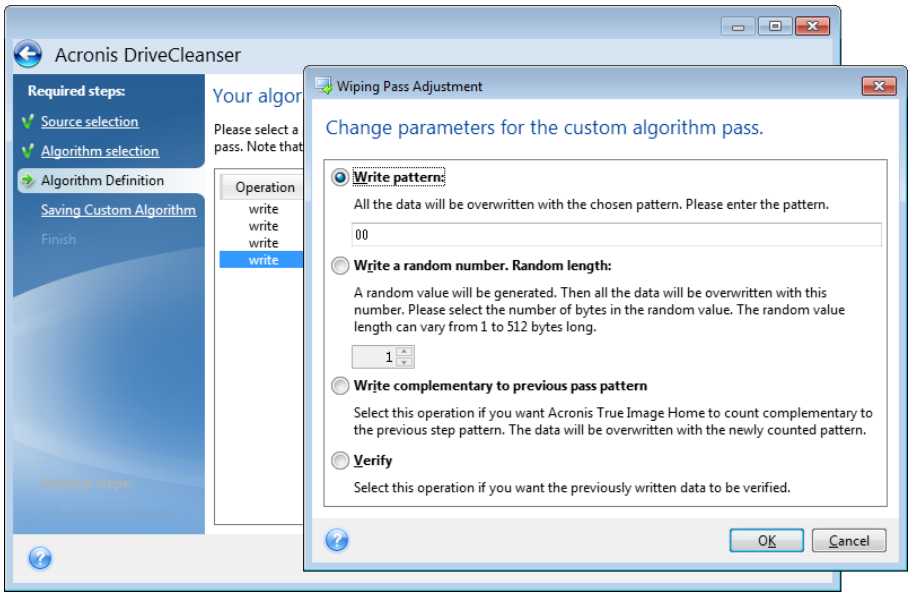
Acronis DriveCleanser offers you another useful capability — to estimate the results of executing a data destruction algorithm on a hard disk or partition. It features an integrated Disk Editor (hard disk browsing tool).

The aforementioned algorithms offer various levels of confidential data destruction. Thus the picture you might see on a disk or partition depends on the data destruction algorithm. But what you actually see are disk sectors filled with either zeros or random symbols.

Creating custom algorithms of data destruction

Acronis DriveCleanser gives you the opportunity to create your own algorithms for wiping hard disks. Although the software includes several levels of data destruction, you can choose to create your own. This is recommended only for users familiar with the principles of data destruction used in secure disk wiping methods.

To create a custom hard disk wiping algorithm, select and click the **Custom…** line from the drop-down list in the Algorithm selection window. In this case some new required steps appear in the DriveCleanser wizard and you will be able to create a data destruction algorithm matching your security requirements.


Acronis DriveCleanser
Required steps:
Source selection
Algorithm selection
Algorithm Definition
Saving Custom Algorithm
Finish
Your algor
Please select a
pass. Note that
Operation
write
write
write
write
Wiping Pass Adjustment
Change parameters for the custom algorithm pass.
Write pattern:
All the data will be overwritten with the chosen pattern. Please enter the pattern.
00
Write a random number. Random length:
A random value will be generated. Then all the data will be overwritten with this number. Please select the number of bytes in the random value. The random value length can vary from 1 to 512 bytes long.
1
Write complementary to previous pass pattern
Select this operation if you want Acronis True Image Home to count complementary to the previous step pattern. The data will be overwritten with the newly counted pattern.
Verify
Select this operation if you want the previously written data to be verified.
OK
Cancel

Having created a custom method, you can save the algorithm you created. This will be handy if you are going to use it again.

Loading an algorithm from a file

If you created and saved your algorithm for data destruction while working with True Image 2013 software, you can use it in the following way:

In the Select algorithm window, choose **Load from file…** from the drop-down list and select the file with custom data destruction algorithm parameters. By default, such files have a *.alg extension.

Algorithm definition

The Algorithm definition window shows you a template of the future algorithm.

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The window has the following legend: The first column of the list contains the type of operation on a disk (there are just two: to write a symbol to disk, "writing"; and to verify written, "verification"); the second column contains the pattern of data to be written to disk.

The pattern to be written is always a hexadecimal value, for example, a value of this kind: 0x00, 0xAA, or 0xCD, etc. These values are 1 byte long, but they may be up to 512 bytes long. Except for such values, you may enter a random hexadecimal value of any length (up to 512 bytes). Your algorithm may also include one more value for writing that is designated as the «complementary value» – the value that is complementary to the one written to disk during the previous pass.

If the binary value is represented by the 10001010 (0x8A) sequence, then the complementary binary value will be represented by the 01110101 (0x75) sequence.

The Algorithm definition window offers you the template for the algorithm only. You should define exactly what the software should write to disk to destroy the confidential data according to your algorithm.

To do this, click your mouse on the line representing pass #1 and click **Edit**.

Wiping pass adjustment

The Wiping Pass Adjustment window allows you to define the pattern to be written to disk (hexadecimal value).

This is what the window control elements mean: You may enter any hexadecimal value into the field under the **Write pattern** switch to write it to a hard disk during any pass (during the first pass in this case).

By setting the switch to **Write a random number** position, you will first select to write a random value to disk, and specify the length of the random value in bytes in the field below.

The U.S. standard provides the writing of random values to each byte of each disk sector during the first pass, so set the switch to **Write a random number** position and enter 1 into the field.

Click the **OK** button to continue.

You will be taken to the algorithm definition window again and will see that the former record (write – 00) was replaced by write – random, 1 byte.

To define the next pass, click the **Add** button.

You will see the already-familiar window, but this time there will be more switch positions available: two additional positions will be available for selection:

- **Write complementary to previous pass pattern**: As during the second pass of the U.S. standard, each disk sector is filled with hexadecimal values that are complementary to those written during the previous pass. Therefore you should set the switch to the Write complementary to previous pass pattern position and click the **OK** button.

  You will be taken to the algorithm definition window again. In this window, the second record looks like this: write – complementary to previous step pattern.
- **Verify**

Following the U.S. data destruction standard specification, define third and fourth data overwriting passes.

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In the same way, you can create any data destruction algorithm to match your security requirements.

Saving custom algorithm

In the next Saving Custom Algorithm window, you will be able to save the algorithm you have created. This will be useful if you are going to use it again.

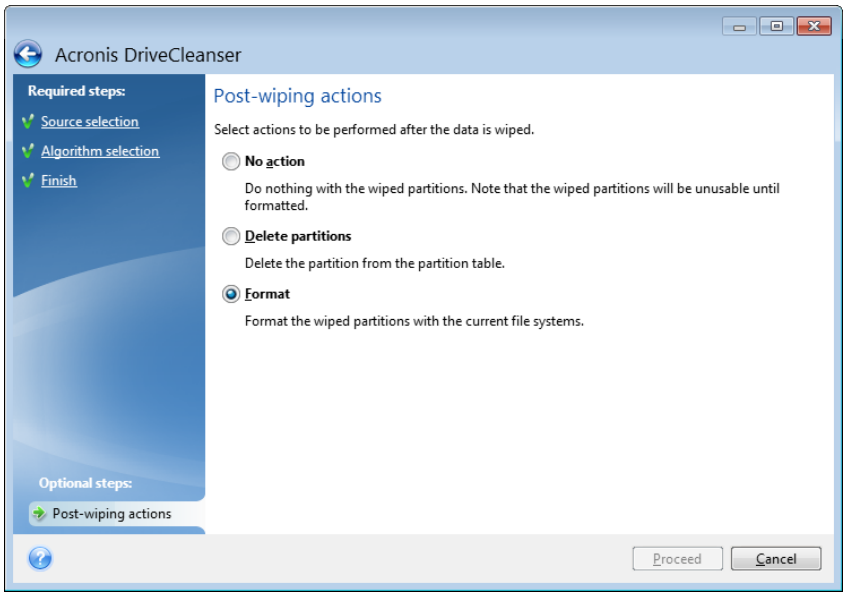
In order to save your algorithm, you need to give it a filename and define the path in the Select file field or locate an existing file on the disk.

Each custom algorithm is stored in a separate file with its own name. If you try to write a new algorithm to an already existing file, the existing file's contents will be erased.

8.8.1.3 Post-wiping actions

In the Post-wiping actions window, you can select actions to be performed on the partitions selected for data destruction. Acronis DriveCleanser offers you three options:

- **No action** — just destroy data using the algorithm selected below
- **Delete partition** — destroy data and delete partition
- **Format** — destroy data and format partition (default).



8.8.1.4 Disk wiping summary

The summary window contains the list of operations to be performed.

Note that after you click the **Proceed** button, the selected partitions will be wiped permanently. So the button is disabled until you select the **Wipe the selected partitions irreversibly** check box.

Click the **Proceed** button to start the listed operations.

Click the **Options** button to perform the optional steps.

Click the **Cancel** button to exit the wizard without performing any operations.

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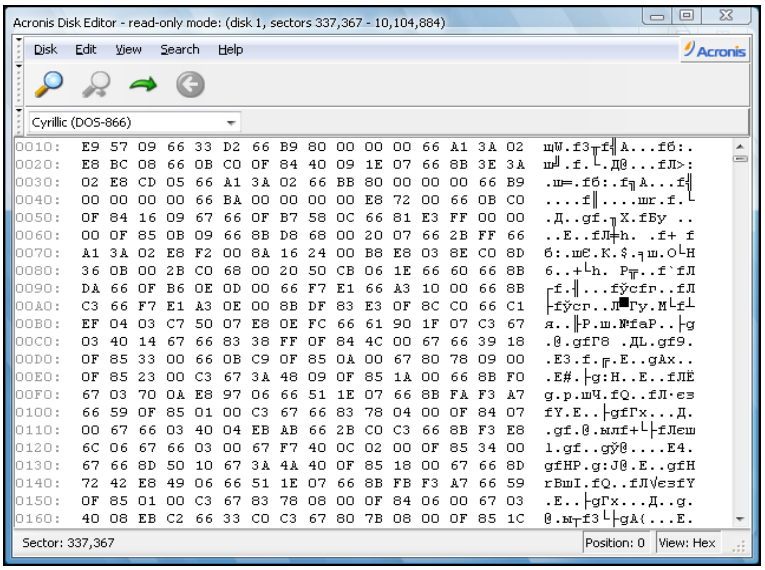
8.8.1.5 Disk Editor (read-only mode)

Acronis DriveCleanser offers you another useful capability — to estimate the results of executing a data destruction method on a hard disk or partition. To view the state of your cleaned up disks or partitions, click the **Tools & Utilities** tab. Then click the **View current state of your disks** link and choose the partition whose cleaning results you wish to view. This opens an integrated Acronis Disk Editor (in read-only mode).

Different algorithms offer various levels of confidential data destruction. Thus the picture you might see on a disk or partition depends on the data destruction method. But what you actually see are disk sectors filled with either zeros or random symbols.



Hard disk content search

The **Search** menu allows you to search a hard disk for a line and to go to a disk sector according to its absolute offset.

Selecting the **Search** item in the same menu will give you access to functions of searching lines in the disk being edited. (You can do the same by pressing the **Ctrl + F** key combination.) Search parameters are set in the **Search** dialog window.

To begin searching:

- A search line can be set both as a char (**Text** field), and numeric (hexadecimal) value (**Hex** field). When you type text in the **Text** field, it will be automatically converted to hexadecimal value in the **Hex** field, and vice versa.
- Check the **Case sensitive** parameter to consider a letter case. If you selected a search mode without letter case matching, not only the case but also elements of the above characters will be ignored for Roman character sets.
- Check the **Search at sector offset** parameter to search for a given line at a given offset inside the sector
- Click **OK** to begin searching. After the search process is finished, the current position will be moved to where a line was found, or will remain the same if no lines were found. You can search for the next line from the current position by selecting the **Search again** item in the **Search** menu or by pressing the **F3** key.

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Go to sector

You can go to the necessary sector according to its absolute offset by selecting the **Go to…** line in the **Search** menu (or by pressing the **Alt+P** key combination). Selecting this line opens the **Go to…** dialog window.

The transition is performed by entering the absolute sector offset, or cylinder, head, and sector numbers. The listed parameters are bound by this expression:

(CYL x HDS + HD) x SPT + SEC – 1

Where CYL, HD, SEC are numbers of the cylinder, head, sector in the CHS co-ordinates (Cylinder – Head – Sector); HDS is the number of heads per disk, SPT is the number of sectors per track.

You can return to a sector from another one by selecting the **Back** item in the **Search** menu (or by pressing the **Ctrl+Backspace** key combination).

8.8.2 File shredder

The **File shredder** enables quick, permanent destruction of selected files and folders.

To permanently destroy files and folders:

- Click the **Tools and utilities** tab and then click **File shredder**.
- Follow the File shredder wizard steps.

8.8.2.1 Select files/folders

Select the files and/or folders you wish to shred.

To select files and/or folders:

- Expand the drives tree and select the files and/or folders you need to shred. You can select a random set of files, folders and even disks. Be careful when selecting the contents for shredding to avoid the loss of necessary data.

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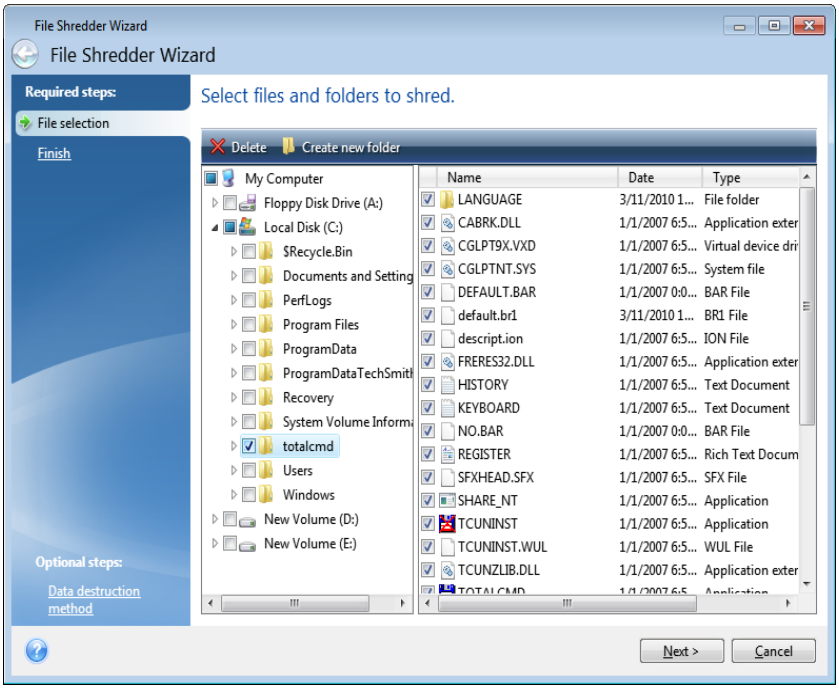
- Having selected the contents for shredding, click **Next** to continue.



8.8.2.2 Data destruction method selection

File Shredder utilizes a number of the most popular data destruction methods. Here, you need to select the desired data destruction method.

The data destruction methods are described in detail in Hard Disk Wiping Methods (p. 219) of this guide.

Clicking **Proceed** after you select the desired method will start the operation execution (if the **Proceed** button is unselectable, click **Finish** on the sidebar and select the **Destroy the selected files and folders irreversibly** box to enable the **Proceed** button).

8.8.2.3 Shredding summary

The final window displays a brief summary: the list of selected files and/or folders to be destroyed and data destruction method used.

Note that after you click the **Proceed** button, the selected files and folders will be destroyed permanently. So the button is disabled until you select the **Destroy the selected files and folders irreversibly** check box.

Click the **Proceed** button to destroy the selected files and/or folders permanently.

Click the **Options** button to perform the optional steps.

Click the **Cancel** button to exit the wizard without performing any operations.

Shredding operation progress

The operation status window reports about the state of the current operation.

The progress bar indicates the level of completion of the selected operation.

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In some cases, the operation may take a long time to be completed. If this is the case, select the **Shutdown the computer after completion** check box. When the operation finishes, True Image 2013 will turn the computer off.

8.8.3 System Clean-up

The System Clean-up wizard enables you to securely remove all traces of your PC actions stored by Windows.

It can carry out the following operations:

- Securely destroy data in the **Windows Recycle Bin**
- Remove **temporary files** from appropriate Windows folders
- Clean up **hard disk free space** of any traces of information previously stored on it
- Remove traces of **file and computer searches** on connected disks and computers in the local area network
- Clean the **recently used documents** list
- Clean the **Windows Run** list
- Clean the **opened/saved files** history
- Clean the list of network places to which the user has connected using **network credentials**
- Clean the **Windows prefetch directory**, where Windows stores information about programs you have executed and run recently

Windows Vista and Windows 7 do not store information on file and computer searches. Furthermore, information on opened/saved files is stored differently in the registry, so the wizard shows this information in a different way.

*****

Please, be aware that Windows stores passwords until the session ends, so cleaning the list of network user credentials will not take effect until you end the current Windows session by logging out or by rebooting the computer.

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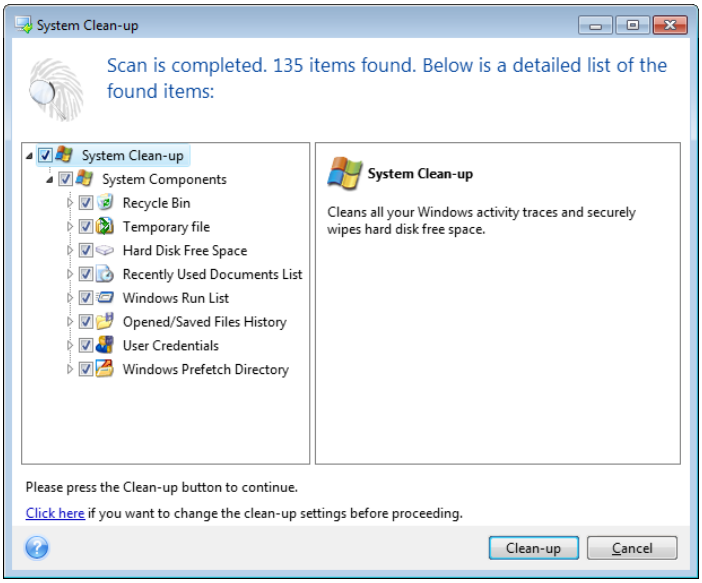
After you start the wizard by selecting the **Tools and utilities** tab and then clicking **System Clean-up**, it will search for any traces of user actions stored by Windows. When the search is finished, its results will be available at the top of the wizard window.


System Clean-up
Scan is completed. 135 items found. Below is a detailed list of the found items:
System Clean-up
System Components
Recycle Bin
Temporary file
Hard Disk Free Space
Recently Used Documents List
Windows Run List
Opened/Saved Files History
User Credentials
Windows Prefetch Directory
System Clean-up
Cleans all your Windows activity traces and securely wipes hard disk free space.
Please press the Clean-up button to continue.
Click here if you want to change the clean-up settings before proceeding.
Clean-up
Cancel

You can view the search results and manually select the items you wish to remove.

If you want to change the default system clean-up settings, click the corresponding link in the first window of the System Clean-up wizard.

Click **Clean-up** to launch removing the found items.

8.8.3.1 Clean-up settings

In the clean-up settings window you can change the clean-up settings for every system component. Some of these settings apply to all components.

To change the clean-up settings for a component:

- Expand the **System Components** item in the tree and select the component clean-up settings which you need to change. You can enable or disable scanning of the component by the Clean-up wizard. To do this, select or clear the **Enable** check box.

  If required, you can also expand a component and customize the desired data destruction method, files to clean, clean-up registry search strings you have used for finding computers in the local network, etc. To do this, click the triangle near the component, select an option from the list and specify the settings.
- After you set the desired components' properties, click **OK** to save your settings. These settings will be used as default next time you launch the Clean-up wizard.

If you have already changed the clean-up settings before, you can always return to the program defaults by clicking the **Restore Defaults** button.

System components:

- Recycle Bin
- Temporary files
- Hard disk free space

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- Find Computer list
- Find File list
- Recently Used Documents list
- Windows Run List
- Opened/saved files history
- User Credentials
- Windows Prefetch Directory

8.8.3.2 Default clean-up options

The default clean-up options are available by clicking the **Click to change this setting…** link on the **Data Destruction Method** option page.

To change the default clean-up options:

- Choose on the tree the component clean-up settings which you need to change.
- After you change the options, click **OK** to save your settings.

If you have already changed the clean-up settings before, you can always return to the program defaults by clicking the **Restore Defaults** button.

General

By default, the summary dialog window is displayed after each clean-up procedure ends (the **Show summary** check box is selected). If you do not need this window to be displayed, uncheck the box.

Clean-up options

System Clean-up utilizes a number of the most popular data destruction methods. Here, you can select the common data destruction method which will be used by default for all other components.

The data destruction methods are described in detail in Hard Disk Wiping Methods (p. 219) of this guide.

8.8.3.3 Specific clean-up options

You can customize the following clean-up options:

- Data destruction method
- Default options
- Files
- Drive free space
- Computers
- Commands
- Network places filter

Data destruction method

System Clean-up utilizes a number of the most popular data destruction methods. Here, you need to select the desired data destruction method.

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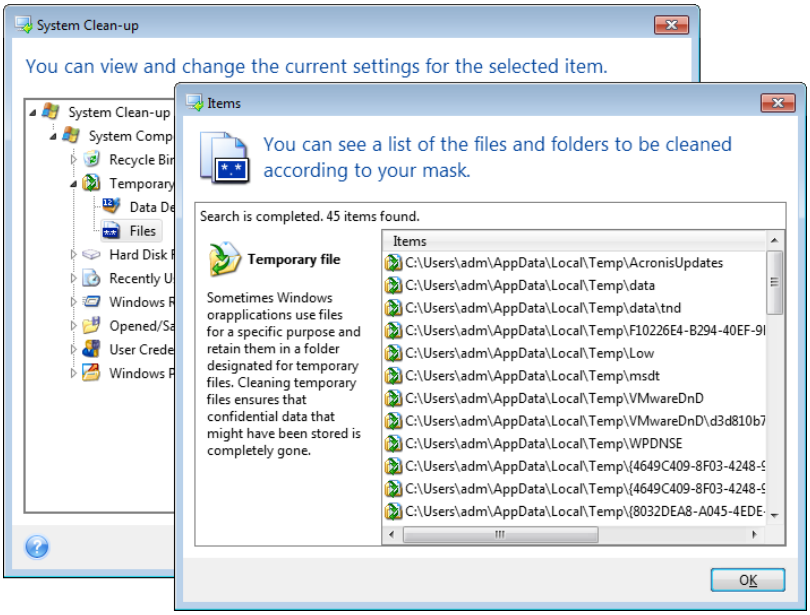
- **Use common method** - if you leave this parameter selected, the program will use the default method (the initial setting is Fast method).

  If you need another destruction method to be set as a default, click on the corresponding link.
- **Use custom method for this component** - selecting this parameter allows you to choose one of the preset data destruction methods from the drop-down list.

The data destruction methods are described in detail in Hard Disk Wiping Methods (p. 219) of this guide.

Files

The Files setting defines the names of files to clean with System Clean-up wizard and can be used with a search string.


System Clean-up
You can view and change the current settings for the selected item.
Items
You can see a list of the files and folders to be cleaned according to your mask.
Search is completed. 45 items found.
Temporary file
Sometimes Windows orapplications use files for a specific purpose and retain them in a folder designated for temporary files. Cleaning temporary files ensures that confidential data that might have been stored is completely gone.
Items
C:\Users\adm\AppData\Local\Temp\AcronisUpdates
C:\Users\adm\AppData\Local\Temp\data
C:\Users\adm\AppData\Local\Temp\data\tnd
C:\Users\adm\AppData\Local\Temp\Low
C:\Users\adm\AppData\Local\Temp\msdt
C:\Users\adm\AppData\Local\Temp\VMwareDnD
C:\Users\adm\AppData\Local\Temp\WPDNSE
OK

Under the Windows operating system, a search string can represent a full or partial filename. A search string can contain any alphanumeric symbols, including commas and Windows wildcard symbols, and can have values similar to the following:

- *.* – to clean all files with any file names and extensions.
- *.doc – to clean all files with a specific extension – Microsoft document files in this case .
- read*.* – to clean all files with any extensions, and names beginning with "read".
- read?.* – to clean all files having five-letter names and any extensions, names beginning with "read"; the fifth letter is random.

  The last search string, for example, will result in the removal of read1.txt, ready.doc files, but readyness.txt will remain with its longer name (excluding the extension)

You can enter several different search strings separated by semicolons; for example:

.bak;.tmp;*.~~~ (without spaces between the search strings)

All files with names corresponding to at least one of the search strings will be cleaned.

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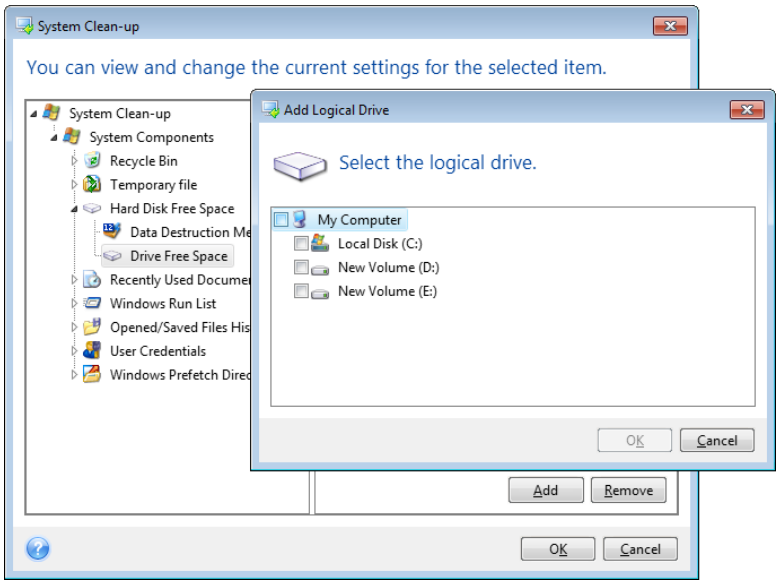
Upon entering the Files setting value, you can browse the files matching the search strings. To do this, click **Show Files**. You will see a window with the names of the found files. These files will be cleaned.

Drive free space

Here you can manually specify physical and/or logical drives to clean up free space on. By default, System Clean-up cleans up free space on all available drives.

If you want to change the settings of this parameter, you can use the **Remove** button to delete from the list the drives you don't need to clean free space on.

If you wish to add these drives to the list again, use the **Add** button.



Computers

The **Computers** setting is used for cleaning up the registry search strings you have used for finding computers in the local network. These strings keep information on what has interested you in the network. These items should also be deleted to maintain confidentiality.

The **Computers** setting is similar to the **Files** setting. It is a string that can contain any number of full or partial computer names separated by semicolons. The deletion of computer search strings is based on a comparison with the **Computers** setting value according to Windows rules.

If you simply need to delete all local network computer search strings (suitable in most cases), just leave the default value of this setting. To restore the default settings:

- Select the **Find Computer List** component
- Make sure the **Enable** check box is selected
- Select the **Computers** setting; make sure its text box is clear.

As a result, all computer search strings will be deleted from the registry.

After entering the **Computers** setting value, you can browse the search strings found by the System Clean-up Wizard in the registry. To do so, click **Show Computers**. You will see the window with full and partial computer names searched for in the network. These items will be deleted.

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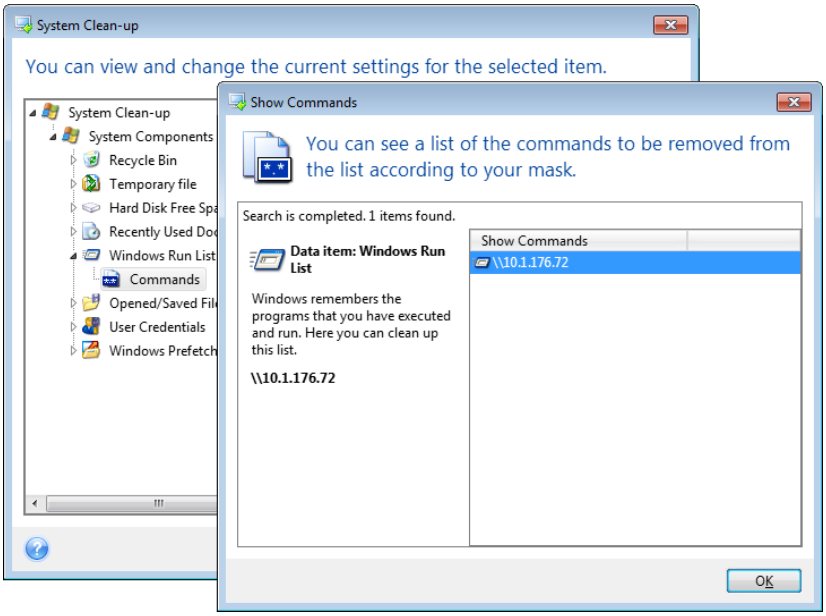
"Commands" setting

Here you can select the commands to remove during **Windows Run List** clean-up.

This template can contain any command names or their parts separated by semicolons, e.g.:

help; cmd; reg

This will result in removing commands with names corresponding to or containing any of the names or parts of names you entered.


System Clean-up
You can view and change the current settings for the selected item.
System Clean-up
System Components
Recycle Bin
Temporary file
Hard Disk Free Spa
Recently Used Doc
Windows Run List
Commands
Opened/Saved Fil
User Credentials
Windows Prefetch
Show Commands
You can see a list of the commands to be removed from the list according to your mask.
Search is completed. 1 items found.
Data item: Windows Run List
Windows remembers the programs that you have executed and run. Here you can clean up this list.
\\10.1.176.72
Show Commands
\\10.1.176.72
OK

Network places filter

Here you can enter (separated by semicolons) any hostnames or IP addresses of network places, servers, FTP servers, network shares, etc. to which you have made connection by supplying network credentials (a user name and password). While entering hostnames and IP addresses you can use * and ? wildcards.

Click **Show network places** to view the list of network places that you visited using the credentials you want to delete.

8.8.3.4 Preview

When the scanning is finished, its results will be available in the upper part of the wizard window. By default, all system components are scanned for clean-up. If you want to customize which of the system components should be scanned and which should not, change the default clean-up settings.

You can view the search results and manually select/unselect the items you wish to clean up/keep. In order to help you with making the right choice, all the components are provided with brief descriptions. Just click on the component's name and its description will be displayed in the right side of the window.

To select/unselect a component

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- Expand the **System Components** item in the System Clean-up tree and make sure that the component you wish to clean up is selected. If you do not want to clean up a component, simply clear its check box.
- If required, you can dig deeper by expanding a component and selecting/unselecting its contents.

Having specified the components for clean-up, click the **Clean-up** button to continue.

Windows Vista and Windows 7 do not keep information on file and computer searches. Furthermore, information on opened/saved files is stored in the registry differently, so the wizard shows this information in a different way.

8.8.3.5 Clean-up progress

The operation status window reports about the state of the current operation.

The progress bar indicates the level of completion of the selected operation.

In some cases, the operation may take a long time to be completed. If this is the case, select the **Shutdown the computer after completion** check box. When the operation finishes, True Image 2013 will turn the computer off.

8.8.4 Hard Disk Wiping methods

Information removed from a hard disk drive by non-secure means (for example, by simple Windows delete) can easily be recovered. Utilizing specialized equipment, it is possible to recover even repeatedly overwritten information. Therefore, guaranteed data wiping is more important now than ever before.

The **guaranteed wiping of information** from magnetic media (e.g. a hard disk drive) means it is impossible to recover data by even a qualified specialist with the help of all known tools and recovery methods.

This problem can be explained in the following way: Data is stored on a hard disk as a binary sequence of 1 and 0 (ones and zeros), represented by differently magnetized parts of a disk.

Generally speaking, a 1 written to a hard disk is read as 1 by its controller, and 0 is read as 0. However, if you write 1 over 0, the result is conditionally 0.95 and vice versa – if 1 is written over 1 the result is 1.05. These differences are irrelevant for the controller. However, using special equipment, one can easily read the «underlying» sequence of 1's and 0's.

It only requires specialized software and inexpensive hardware to read data "deleted" this way by analyzing magnetization of hard disk sectors, residual magnetization of track sides and/or by using current magnetic microscopes.

Writing to magnetic media leads to subtle effects summarized as follows: every track of a disk stores **an image of every record** ever written to it, but the effect of such records (magnetic layer) becomes more subtle as time passes.

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8.8.4.1 Functioning principles of Information wiping methods

Physically, the complete wiping of information from a hard disk involves the switching of every elementary magnetic area of the recording material as many times as possible by writing specially selected sequences of logical 1's and 0's (also known as samples).

Using logical data encoding methods in current hard disks, you can select **samples** of symbol (or elementary data bit) sequences to be written to sectors in order to **repeatedly and effectively wipe confidential information.**

Methods offered by national standards provide (single or triple) recording of random symbols to disk sectors that are **straightforward and arbitrary decisions, in general**, but still acceptable in simple situations. The most effective information-wiping method is based on deep analysis of subtle features of recording data to all types of hard disks. This knowledge speaks of the necessity of complex multipass methods to **guarantee** information wiping.

The detailed theory of guaranteed information wiping is described in an article by Peter Gutmann. Please see:

Secure Deletion of Data from Magnetic and Solid-State Memory at http://www.cs.auckland.ac.nz/~pgut001/pubs/secure_del.html.

8.8.4.2 Information wiping methods used by Acronis

The table below briefly describes information wiping methods used by Acronis. Each description features the number of hard disk sector passes along with the number(s) written to each sector byte.

The description of built-in information wiping methods

No.	Algorithm (writing method)	Passes	Record
1.	United States Department of Defense 5220.22-M	4	1st pass – randomly selected symbols to each byte of each sector, 2 – complementary to written during the 1st pass; 3 – random symbols again; 4 – writing verification.
2.	United States: NAVSO P-5239-26 (RLL)	4	1st pass – 0x01 to all sectors, 2 – 0x27FFFFFF, 3 – random symbol sequences, 4 – verification.
3.	United States: NAVSO P-5239-26 (MFM)	4	1st pass – 0x01 to all sectors, 2 – 0x7FFFFFFF, 3 – random symbol sequences, 4 – verification.
4.	German: VSITR	7	1st – 6th – alternate sequences of: 0x00 and 0xFF; 7th – 0xAA; i.e. 0x00, 0xFF, 0x00, 0xFF, 0x00, 0xFF, 0xAA.
5.	Russian: GOST P50739-95	1	Logical zeros (0x00 numbers) to each byte of each sector for 6th to 4th security level systems. Randomly selected symbols (numbers) to each byte of each sector for 3rd to 1st security level systems.
6.	Peter Gutmann's method	35	Peter Gutmann's method is very sophisticated. It's based on his theory of hard disk information wiping (see Secure Deletion of Data from Magnetic and Solid-State Memory).
7.	Bruce Schneier's method	7	Bruce Schneier offers a seven-pass overwriting method in his Applied Cryptography book. 1st pass –

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No.	Algorithm (writing method)	Passes	Record
			0xFF, 2nd pass – 0x00, and then five times with a cryptographically secure pseudo-random sequence.
8.	Fast	1	Logical zeros (0x00 numbers) to all sectors to wipe.

8.9 Mounting an image

True Image 2013 offers mounting for images and exploring for both images and file-level backups.

Exploring images and file-level backups lets you view their contents and copy the selected files to a hard disk. To explore a backup in Windows Explorer, double-click on the corresponding tib file.

When you copy files from a backup being explored, the copied files lose the "Compressed" and "Encrypted" attribute. If you need to keep these attributes, it is recommended to recover the backup.

Mounting images as virtual drives lets you access them as though they were physical drives. Such ability means that:

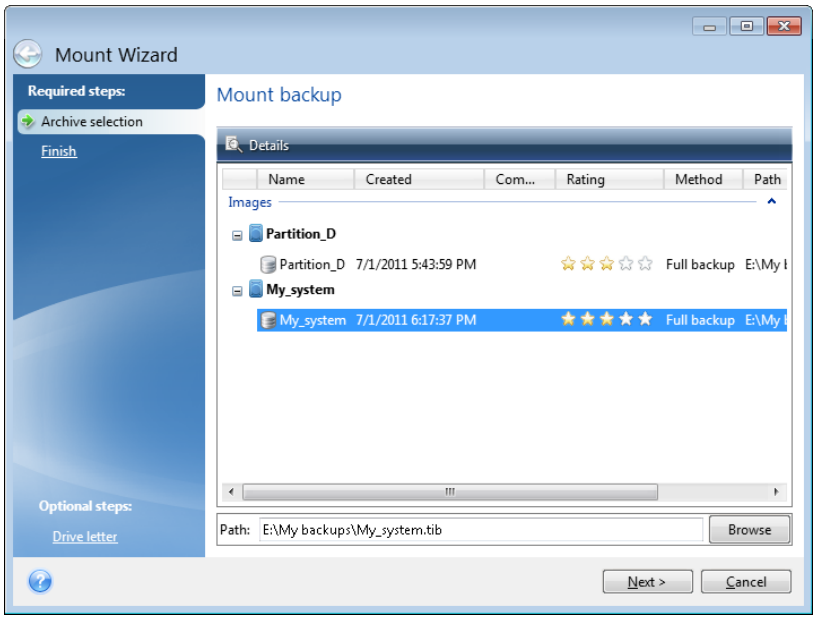
- a new disk with its own letter will appear in the drives list
- using Windows Explorer and other file managers, you can view the image contents as if they were located on a physical disk or partition
- you will be able to use the virtual disk in the same way as the real one: open, save, copy, move, create, delete files or folders. If necessary, the image can be mounted in read-only mode.

The operations described in this section are supported only for the FAT and NTFS file systems.

Please keep in mind that, though both file backups and disk/partition images have a default ".tib" extension, only **images** can be mounted. If you want to view file backup contents, use the Explore operation.

How to mount an image

1. Start the Mount wizard by clicking **Mount image** on the **Tools and utilities** tab.
2. Select the backup for mounting.



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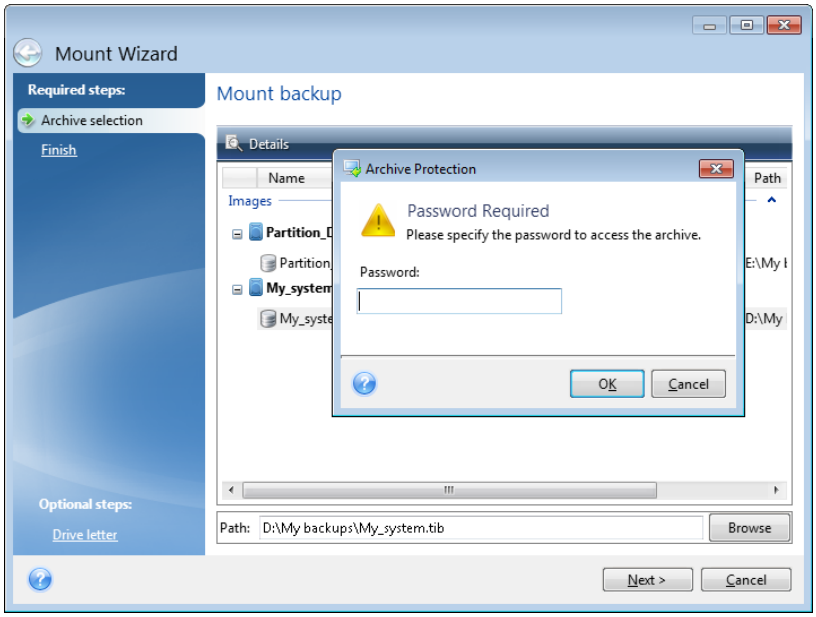
If you selected a backup containing incremental images, you can select one of the successive incremental images (also called "backup versions") by its creation date/time. Thus, you can explore the data state at a certain moment.

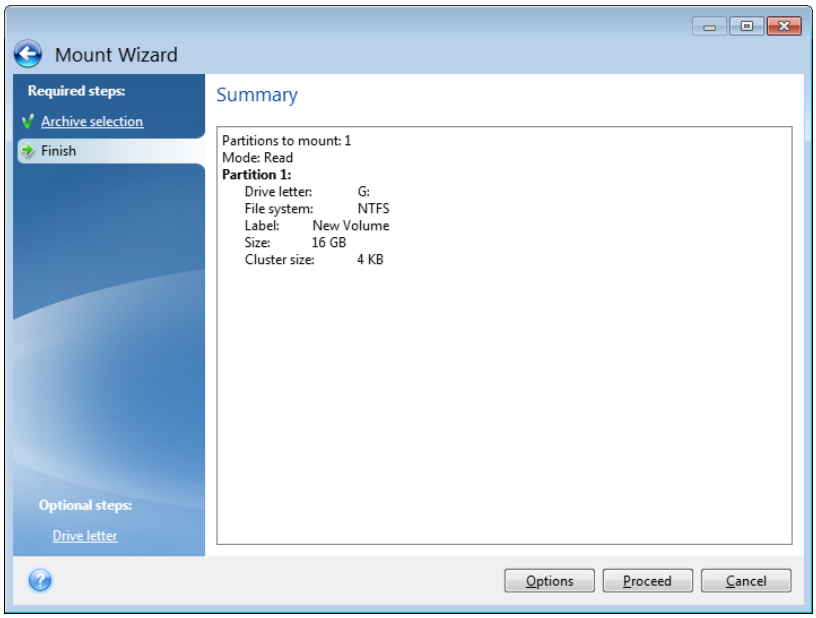
To mount an incremental image, you must have all previous backup versions and the initial full backup. If any of the successive backups are missing, mounting is not possible.

To mount a differential image, you must have the initial full image as well.

If the backup was password-protected, True Image 2013 will ask for the password in a dialog box. Neither the partitions layout will be shown, nor will the **Next** button be enabled until you enter the correct password.



3. Select a partition to mount as a virtual disk. (Note that you cannot mount an image of the entire disk except in the case when the disk consists of one partition). If the image contains several partitions, by default all of them will be selected for mounting with automatically assigned drive letters. If you would like to assign different drive letters to the partitions to be mounted, click **Options**.



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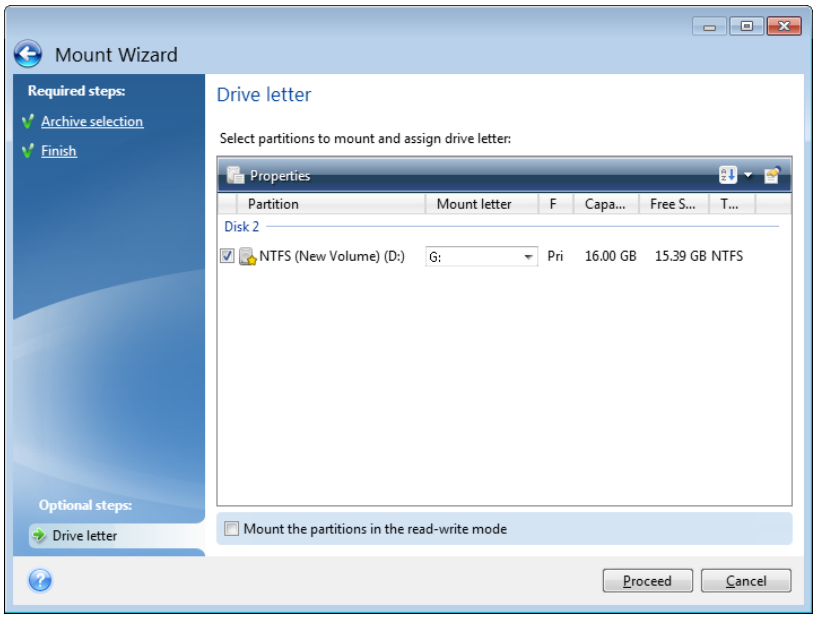
You can also select a letter to be assigned to the virtual disk from the **Mount letter** drop-down list. If you do not want to mount a partition, select **Do not mount** in the list or clear the partition's check box.



4. If you select the **Mount the partitions in the read-write mode** box, the program assumes that the mounted image will be modified and creates an incremental backup file to capture the changes. It is strongly recommended that you list the forthcoming changes in the Comments section to this file. For you to be able to make comments, the optional **Comments** step appears in the wizard.
5. Having finished the settings, click **Proceed** to connect the selected partition images as virtual disks.
6. After the image is connected, the program will run Windows Explorer, showing its contents. Now you can work with files or folders as if they were located on a real disk.

8.10 Unmounting an image

We recommend that you unmount the virtual disk after all necessary operations are finished, as maintaining virtual disks takes considerable system resources. If you do not unmount the disk, it will disappear after your computer is turned off.

To disconnect the virtual disk, click **Unmount image** on the **Tools and utilities** tab, select the disk to unmount and click **OK**.

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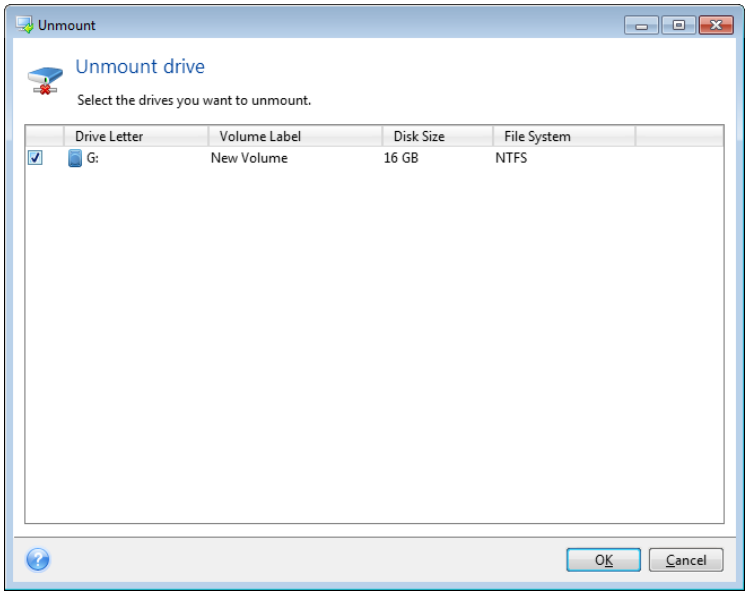
If you have mounted several partitions, by default all of them will be selected for unmounting. You can disconnect all mounted drives together or disconnect only those you do not need mounted anymore.



You can also do this in Windows Explorer by right-clicking on the disk icon and choosing **Unmount**.

8.11 Working with vhd files

In this section

Converting tib images into vhd virtual disks and vice versa 224
Recovery using vhd files created by Windows Backup 226
Booting from a tib image of your Windows 7 system partition 227
Acronis Boot Sequence Manager.....228

8.11.1 Converting tib images into vhd virtual disks and vice versa

The standalone versions of True Image 2013 that start when booting from the rescue media do not support conversion operations.

8.11.1.1 Converting Acronis backup

Users of the Enterprise and Ultimate editions of Windows 7 can convert a tib image of the system partition into the vhd format if they want to use the converted vhd file for booting the operating system. Or, they may want to get the ability to mount images without using True Image 2013.

To convert an Acronis disk image (tib file) to a vhd virtual disk:

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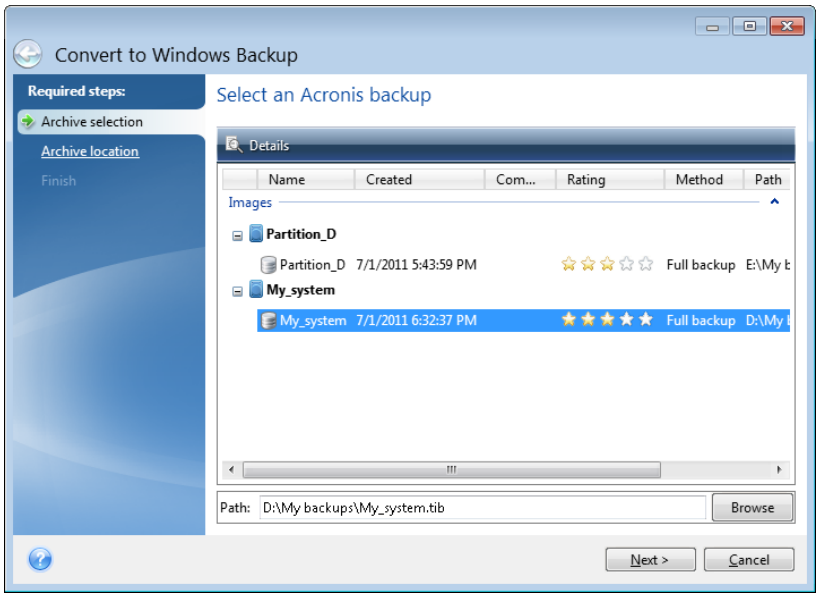
1. Click **Acronis backup conversion** on the **Tools and utilities** tab.



2. Select the disk image to convert.

   If the backup is password-protected, True Image 2013 will ask for it. Note that the resulting vhd file will lose password protection.

   Converting an incremental backup requires all the previous incremental backups and the original full backup. Converting a differential backup requires the original full backup. The result of conversion is always a full backup.

3. Specify the path to the file to be created.

   The converted file will be saved to the default location, but you can select another one by clicking **Browse**. The file can be directed to any local storage supported by True Image 2013 (except the Acronis Secure Zone and CD/DVD). In addition, it can be directed to an SMB share.

4. Click **Proceed** in the Summary window.

When a tib image selected for conversion contains partitions, for example, from two physical hard disk drives, the program will create two vhd files corresponding to those physical drives.

True Image 2013 cannot convert tib files containing images of spanned and striped dynamic volumes.

8.11.1.2 Converting Windows backup

Windows Vista and Windows 7 users can convert vhd files created by Windows Backup into Acronis backups. This may be needed if you want to keep the earlier Windows Backup files, but decide to convert them into tib files to save storage space. The converted tib files are smaller than the corresponding vhd files due to compression.

Do not move vhd files from the folder to where they were saved by Windows Backup (by default, the folder has the name "WindowsImageBackup"). Otherwise, the operating system may be unbootable after recovery of the system partition from the converted tib file.

The virtual to physical conversion is done as follows:

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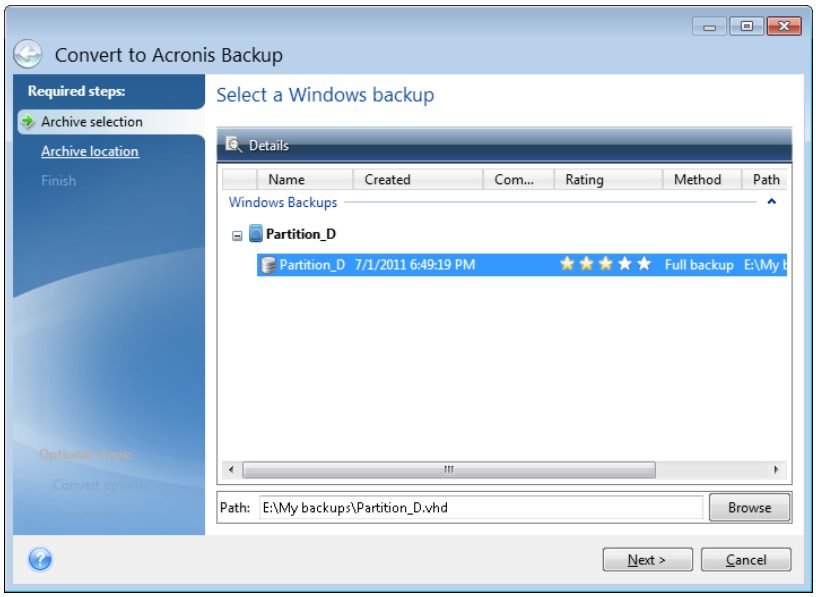
1. Click **Windows backup conversion** on the **Tools and utilities** tab.



2. Select the vhd file to convert.
3. Specify the path to the tib file to be created.

   By default, the converted file will be created in the same location as the file to be converted. However, you can select another location by clicking **Browse**. The file can be directed to any storage supported by True Image 2013, except for Acronis Secure Zone.
4. The next step allows you to set options for the tib backup to be created. You can protect the backup with a password and encryption, select a desired compression level, and split the backup, for example, for later burning to DVDs.
5. Add comments to the backup, if you wish.
6. Click **Proceed** in the Summary window.

True Image 2013 cannot convert vhd files containing dynamic volumes which were originally located on more than one disk drive (striped or spanned on two or more disk drives).

8.11.2 Recovery using vhd files created by Windows Backup

You may have vhd files if you used the Windows Backup utility included into Windows Vista and Windows 7 for backing up the system hard drive.

If you purchased True Image 2013 after using Windows Vista or Windows 7 backup utility, you can recover your system hard drive from those vhd files using True Image 2013.

When you need to recover your system using a vhd backup file, proceed as follows:

1. Arrange the boot order in BIOS so as to make your rescue media device (CD, DVD or USB stick) the first boot device. See Arranging boot order in BIOS (p. 103).
2. Boot from the rescue media and select **True Image**.
3. After True Image 2013 starts, click the **My Disks** link under **Recover** on the Welcome screen.
4. Choose the vhd backup file to be used for recovery by its creation date. When the required vhd backup is not shown, click **Browse**, choose Windows Backup Archives (*.vhd) in the "Files of type" field and locate the backup for recovery.

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*Even if the required vhd backup is shown on the screen, after you choose it True Image 2013 may display the following message: "True Image 2013 cannot detect volume 1 of "Backup_Name" archive", where Backup_Name is the name of the chosen backup. This is because disk letters in the standalone True Image 2013 may differ from those in Windows and the path to this backup stored in the metadata information will point to the wrong location. In such case click **Browse**, choose Windows Backup Archives (*.vhd) in the "Files of type" field and locate the backup for recovery.*

5. At the next step select **Recover whole disks and partitions** (if it is not selected) and click **Next**.
6. Select the system partition at the **What to recover** step. Usually you will not need to recover the MBR.
7. Then specify the settings of the selected system partition: location, type (primary, active) and size. When recovering the partition to the original location, you do not need to make any setting changes.
8. Read the Summary of the recovery operations and then click **Proceed**.

You can also recover partitions and disks from vhd files while working in Windows. This is preferable for recovering data partitions and disks.

8.11.3 Booting from a tib image of your Windows 7 system partition

As already mentioned, users of the Enterprise and Ultimate editions of Windows 7 can boot from tib images of Windows 7 system partition. This allows you to test bootability of the backed up system without actual recovery. Booting can be done only when running True Image 2013 in Windows.

If you have Windows 7 Enterprise or Ultimate and want to test whether your Windows 7 system partition backup will recover to a bootable operating system, proceed as follows:

1. Open Acronis Boot Sequence Manager by clicking **Boot Sequence Manager** on the **Tools & Utilities** screen.
2. Click **Add** on the toolbar of Acronis Boot Sequence Manager and browse for the required tib file, then click **OK**.
3. Because actual booting is performed from VHD, the program needs to convert the selected tib file so the appropriate dialog will appear.
4. Click **OK** if you want to save the converted file to the default location with the same name or browse for another location. Saving to another location allows you to change the name of the vhd file.

   Booting is possible only when the vhd file is located on an NTFS-formatted local hard disk.

   If there is not enough space for the converted file in the selected location, the program will notify you. You can delete unnecessary files and click **Retry** or cancel the conversion and repeat the operation choosing another location for the converted file.
5. After the conversion process finishes a new line with the vhd filename will be added to the Acronis Boot Sequence Manager.

   To use the VHD for booting, the partition with the converted vhd file must have sufficient free space. Tib files are converted into dynamic VHDs with the maximum size that equals the size of a partition backed up into a tib file. When you boot from a dynamic vhd file, the VHD is automatically expanded to the maximum size. If the physical host partition of the vhd file does not have enough free disk space for the maximum size of the dynamic VHD, the boot process will fail. Furthermore, you need to have additional space for the paging file (Pagefile.sys), as the paging file is created on the host partition outside the virtual one. Microsoft states that you should estimate approximately 5 GB of available space in addition to the

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maximum size of the vhd file. So the estimated free space is the size of your system partition plus 5 GB. From the above, it follows that you cannot boot from the vhd file if it is located on your system partition.

6. Reboot the computer and select the new entry in the Acronis Boot Sequence Manager list for booting, then click **OK**. If Windows boots normally, you can be quite sure that the backup will recover to a bootable Windows 7 operating system.
7. After making sure that the tib image is bootable, you can remove its entry from the Acronis Boot Sequence Manager list. To do so, select the entry and click **Remove** on the toolbar. True Image 2013 will ask to confirm removal. You may also want to delete the vhd file used for booting. If so, open Windows Explorer and delete the file.

8.11.4 Acronis Boot Sequence Manager

The Acronis Boot Sequence Manager tool is only available for users of the Enterprise and Ultimate editions of Windows 7.

Acronis Boot Sequence Manager allows you to add Windows 7 system partition images to the booting list and then manage the list.

You can add to the list images backed up both in the vhd and tib formats. Adding a tib image requires converting it into the vhd format. For more detailed information on booting from tib images see Booting from a tib image of your Windows 7 system partition (p. 227).

Actual booting is carried out using Windows boot loader. Acronis Boot Sequence Manager just adds virtual disks (vhd files) to the Windows boot loader' list of disks available for booting to Windows 7.

If you do not select from where to boot, then by default the computer boots from the first entry in the booting list after waiting for a time interval specified in the Boot Timeout field. To change the default boot disk (either physical or virtual), you can move entries up and down in the list using the corresponding buttons on the toolbar.

Clicking the **Rename** button allows you to assign a desired name to a list entry.

When you no longer need an entry in the list, you can remove it by clicking **Remove** on the toolbar.

The **Remove all** button allows you to remove all entries related to virtual disks and restore the original booting configuration.

8.12 Importing and exporting backup settings

True Image 2013 allows you to import and export the settings of your backups. This may be desirable if you need to transfer the settings to a new PC after installing True Image 2013 on that computer. Saving the settings may also be useful if you later decide to upgrade to the next True Image 2013 version.

Such transfer will make configuring backups on the new PC much easier. You only need to export the settings and then import them to the other PC. The settings are exported in the form of script files.

The settings content can be different depending on a backup type. In case of "classic" disk and file type backups the settings consist of the following items:

- list of items for backup
- backup options
- backup location

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- schedule
- backup scheme
- automatic clean-up rules
- backup version naming rules

The settings of Nonstop Backup are as follows:

- list of items for nonstop protection
- Nonstop Backup data storage location (a list of locations, if there are several)

You cannot import Online Backup settings from one computer to another.

To export the settings of your existing backups, click **Tools & Utilities** on the menu bar. Then click **Export backup settings** and browse for the destination to save the script files with the settings.

To import the settings, start True Image 2013 on another computer and click **Tools & Utilities** on the menu bar. Then click **Import backup settings** and show the path to the script files with the settings.

After importing the settings you may need to change some of them to suit the new environment. For example, it may be necessary to change the list of items for backup, backup destination, etc.

If you want to copy some of your backups to another computer, it is recommended to export the settings of those backups too. Thus you will not lose some of the copied backup's functionality.

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9 Troubleshooting

In this section

Acronis System Report 230
Acronis Smart Error Reporting 231
How to collect crash dumps 232
General recommendations 233
Creating a custom rescue CD 233
Viewing log 234
Acronis Customer Experience Program 235

9.1 Acronis System Report

When you contact the Acronis support team, they will usually need information about your system in order to resolve your problem. Sometimes getting the information is an inconvenient process and may take a long time. The Generate system report tool simplifies the procedure. It generates a system report containing all the necessary technical information and allows you to save the information to file. When it's necessary, you can attach the created file to your problem description and send it to Acronis support team. This will simplify and speed up the search for a solution.

To generate a system report:

- On the main program window click the question mark symbol, and select **Generate system report**, or
- Press **CTRL+F7**. Note that you can use the key combination even when True Image 2013 is performing any other operation.

After the report is generated:

- To save the generated system report to file, click **Save** and in the opened window specify a location for the created file.
- To save the report to file and send it to Acronis support team by e-mail, click **Save and send**.
- To exit to the main program window without saving the report, click **Cancel**.

You can place the tool on your bootable rescue media as a separate component to be able to generate a system report when your computer cannot boot. After you boot from the media, you will be able to generate the report even without running True Image 2013. In this case you should plug in a USB flash drive before clicking the **Acronis System Report** icon. The generated report will be saved on the USB flash drive.

To place the Acronis System Report tool on a bootable rescue media:

- Select the **Acronis System Report** check box on the **Rescue Media Content Selection** page of the **Acronis Media Builder** wizard.
- Click **Next** to continue.

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9.2 Acronis Smart Error Reporting

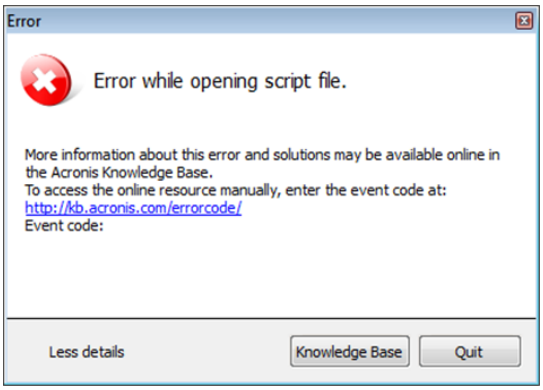
To help users with troubleshooting, the new releases of Acronis products employ the so called Acronis Smart Error Reporting. When an issue is caused by an error in the program's operation, True Image 2013 displays an appropriate error message. The error message contains an event code and a short description of the error (sometimes with a possible solution), for instance:

"Check the disk and file system for errors and try to repeat the operation

Event Code: 0x000101F6"

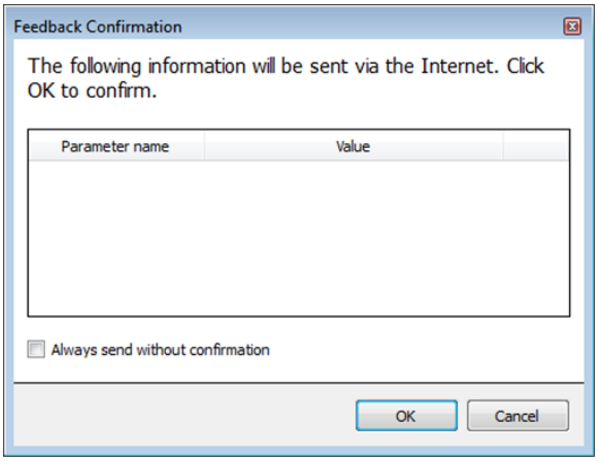
The error message may also include the program module where the error has occurred and the error message from the module.

You can view more detailed information about the error by clicking the **More details** link in the message box. The detailed information may look like as is shown on the following screen shot:


Error
Error while opening script file.
More information about this error and solutions may be available online in the Acronis Knowledge Base.
To access the online resource manually, enter the event code at:
http://kb.acronis.com/errorcode/
Event code:
Less details
Knowledge Base
Quit

To view the Acronis Knowledge Base article suggesting a solution(s) for correcting the error, click the **Knowledge Base** button.

This will open a confirmation window that lists the information to be sent via Internet to the Acronis Knowledge Base. Click **OK** to permit sending the information.



If in future you would like to send such information without confirmation, select the **Always send without confirmation** check box.

If you do not have Internet access when such an error message is shown (this may happen, for example, when booted from the rescue media), please write down the event code. When you

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establish Internet connection or if you can use another computer where Internet connection is available, use the following URL to go to the Acronis Web site error reporting form: http://kb.acronis.com/errorcode/.

Select the Acronis product version you use and manually enter the event code into the appropriate field. Then, click the Search button to search for an article that may contain the solution to your issue.

Sometimes, an error may occur in a low-level program module and then propagate to higher-level modules resulting in errors in those modules as well. This is a so called composite error, where every higher level module generates its own error (event) code. The following error message is an example:

"Failed to start Try & Decide

More information about this error and an applicable solution may be available online in the Acronis Knowledge base.

To access the online resource manually, enter the event code at: http://kb.acronis.com/errorcode/

Event code: 0x00970007+0x00970016+0x00970002"

The event codes from different modules are combined with "+" symbols. When manually entering such event codes into the appropriate field to search in the Knowledge Base, enter the event code components without spaces around the "+" symbols.

If the event code(s) is not recognized in the Knowledge Base, the base does not yet contain an article to resolve the issue. In such cases, please open a trouble ticket with Acronis Customer Central.

9.3 How to collect crash dumps

Because a crash of True Image 2013 or Windows can be caused by different reasons, each crash case must be investigated separately. Acronis Customer Central would appreciate if you could provide the following information:

If True Image 2013 crashes, please provide the following information:

1. A description of the exact sequence of steps performed before you encountered the issue.
2. Dr. Watson crash dump. For information on how to collect such a dump, see the Acronis Support Knowledge Base (KB) article at http://kb.acronis.com/content/2192

If True Image 2013 causes a Windows crash:

1. A description of the exact sequence of steps performed before you encountered the issue.
2. A Windows dump file. For information on how to collect such a dump see the Acronis Support KB article at http://kb.acronis.com/content/17639

If True Image 2013 hangs:

1. A description of the exact sequence of steps performed before you encountered the issue.
2. A userdump of the process. See the Acronis Support KB article at http://kb.acronis.com/content/6265
3. The Procmon log. See the Acronis Support KB article at http://kb.acronis.com/content/2295

If you cannot access the information, contact Acronis Customer Central for an FTP link for uploading files.

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This information will speed up the process of finding a solution.

9.4 General recommendations

The below information may help you in troubleshooting issues encountered during installation and use of True Image 2013.

Quite often the cause of an issue may be trivial. For example, a loose connection of an external hard drive. Before trying other solutions described in this chapter, it is advisable to check if the issue is caused by one of the following:

- loose connections to the external drive;
- poor quality connecting cable;

When using an external USB hard drive, try the following additional suggestions:

- if the drive is connected through a hub, connect it directly to a rear connector of your PC;
- to prevent conflict with other USB devices attached to your PC, try disconnecting all the USB devices (except the mouse and keyboard).

You can try to find the solution to your problem in the Acronis Support Knowledge Base (KB). To access the Support KB, click on the following link: http://kb.acronis.com/. Then use the Search function. Enter the key words related to your problem into the appropriate field and click Search. The KB may have recommendations on solving your specific problem. Acronis Support team continuously adds new articles to the KB. If you are not able to find the solution to your problem in the KB or the suggested solution(s) does not help, feel free to contact Acronis Customer Central at http://www.acronis.com/support/.

When your issue is an error encountered during True Image 2013 operation, the error message box will contain the **Knowledge Base** button. Clicking the button will take you to a Support KB article offering solution(s) for the issue that caused the error. The error message box will also have a link to the Acronis Support KB. This link may be useful when the KB does not have the appropriate article yet. Clicking the link will take you to a Web form. There, you can enter the event code displayed in the error box to search for a solution in the entire KB. For more information, see Acronis Smart Error Reporting (p. 231).

System report

Acronis Support personnel may request you to provide the system report. To create the report, select **Generate system report** in the **Help** menu, then save the report and send it to Acronis Customer Central. For more information see Acronis System Report (p. 230).

9.5 Creating a custom rescue CD

In most cases you can use a standard rescue CD created with a help of Acronis Media Builder. For more information see Creating bootable rescue media (p. 169).

If the recovery environment cannot detect some of the hard disk drives, the network adapter, the mouse or the keyboard, usually there is a problem with the drivers. So when the standard rescue CD lacks some of your hardware drivers, you need to create a custom one.

The Linux-based recovery environment used by Acronis does not provide the ability for users to add new drivers. Because of this, you should request Acronis Customer Service Department to create a custom rescue CD that will have all the drivers you need.

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Before making a request, collect the information about your system. Select **Generate system report** in the Help menu. True Image 2013 will automatically collect the required information and display a list of what is collected in the report. In the process of creating the report the program may install some components required for collecting the necessary information. When the report is complete, click **Save** and select the desired folder or leave the default folder. The program will archive the report into a zip file. This report may also be useful when you request the Acronis Customer Service Department to help you with a problem.

Send the file to the Acronis Customer Service Department. They will build an iso image of a custom rescue media compatible with your computer hardware and send you the iso file. Burn this file to a CD/DVD using a program that can handle iso files such as Nero.

Please be aware that finding the appropriate drivers and making the custom rescue media may take time. Furthermore, finding the appropriate drivers may be not possible in some cases.

After burning your custom rescue CD, test it to make sure that all your computer hardware is now detected in the recovery environment.

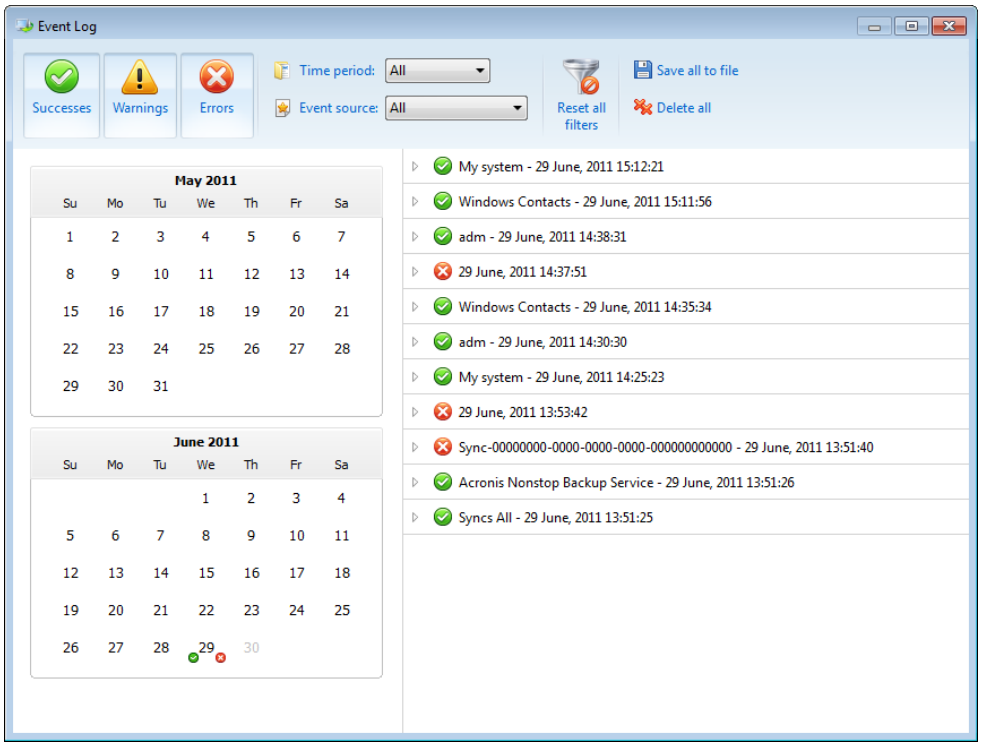
9.6 Viewing log

Most True Image 2013 operations write their own entries in the logs. When issues with the operations occur, the log entries may provide information on their causes.

The log can provide information, for example, about scheduled backup results, including causes for any failures.

If you want to view the log of True Image 2013 operations, click the gear wheel icon on the toolbar to open the Settings menu and then select **View log**.

*You can also open the log for viewing by selecting **View log** in the Operations menu of a backup box. In this case you will see only the log items for the last run of the selected backup.*



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By default all logs are selected for viewing. The right pane shows all major log entries in the collapsed state. To expand a log entry for viewing individual log items, double-click it. To collapse the expanded log entry, double-click it again. You can scroll the log entries using the scroll bar on the right side of the window.

For some error events the log can have the **How to solve the problem** link. Clicking the link takes you to an article of the Acronis Knowledge Base, which may help you to solve the problem.

To view the logs for a desired period, select the period from the drop-down list. You can select **Today**, **Last week**, **Last month,** and **Custom.** To view all logs, select **All**.

To view the logs for a specific time interval, select **Custom** and specify the desired interval. You can enter the desired period start and end dates directly into the fields. You can also select a time interval on the calendar. To select, click the start date and then the end date while keeping the **Shift** key pressed.

To view the logs for a specific event source, select the desired event source in the dropdown list below **Event source:**. You can select the following event sources:

- All - shows all logged events.
- All backups - shows logs for all your backups.
- All syncs - shows logs for all your synchronization.
- Backup validation - shows logs for the validation operation.
- <Sync name> - shows logs for a specific synchronization you select by its name.
- <Backup name> - shows logs for a specific backup you select by its name.
- Etc.

The buttons with up and down arrows at the top and bottom of the calendar allow you to browse the months being shown in the calendar.

The color marks in the calendar show information about the days when operations completed with errors (red marks), warnings (yellow marks), and success (green marks). The current day is highlighted. Clicking a marked day shows the logs for that date.

To delete a log entry, select it, right-click and select **Delete** in the shortcut menu. To delete all log entries, select **Delete all**. You can also save a log entry to file by selecting **Save**. To save all logs to file, select **Save all**.

The three buttons to the left control event filters: the white cross in the red circle filters error events, the exclamation mark in a yellow triangle filters warnings, and the green check mark filters information message events.

To reset all the filters to their default values, click **Reset all filters**.

At the upper-right corner there are the **Save all to file** and **Delete all** buttons. They do the same operations as the corresponding shortcut menu items.

9.7 Acronis Customer Experience Program

Acronis Customer Experience Program (CEP) is a new way to allow Acronis customers to contribute to the features, design and development of Acronis products. This program enables our customers to provide us with various information, including information about the hardware configuration of your host computer and/or virtual machines, the features you use most (and least), and the nature of the

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problems you face. Based on this information, we will be able to improve the Acronis products and the features you use most often.

If you choose to participate, the technical information will be automatically collected every 90 days. We will not collect any personal data, like your name, address, phone number, or keyboard input. Participation in the CEP is voluntary, however, but the end results intended to provide software improvements and enhanced functionality to better meet the needs of our customers.

Note that you will be able to leave the program any time.

Click the **Learn more** link to read the participation terms.

To make a decision:

- Choose **Yes, I want to participate in the program** if you want to join the program
- Choose **No, I do not accept** if you do not want to join the program

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Acronis patented technologies

Technologies, used in this product, are covered by the following U.S. Patents: U.S. U.S. Patent #7,047,380, U.S. U.S. Patent #7,275,139, U.S. Patent #7318135, U.S. Patent #7,366,859, U.S. Patent #7,462,11, U.S. Patent #7,603,533, U.S. Patent #7,650,473, U.S. Patent #7,831,789, U.S. Patent #7,895,403, U.S. Patent #7,934,064, U.S. Patent #7,953,948, U.S. Patent #8,005,797, U.S. Patent #8,069,320, U.S. Patent #8,074,035.

10 Glossary of Terms

A

Acronis Secure Zone

A secure partition for storing backups (p. 238) on a hard disk. Advantages:

- enables recovery of a disk to the same disk where the disk's backup resides
- offers a cost-effective and handy method for protecting data from software malfunction, virus attack, operator error
- eliminates the need for a separate media or network connection to back up or recover the data

Limitations:

1) The Acronis Secure Zone cannot be created on a dynamic disk.

2) The Acronis Secure Zone is not available as a location for backups in the recovery environment when you start True Image 2013 from bootable rescue media, through Acronis Startup Recovery Manager or BartPE.

Acronis Startup Recovery Manager

A protection tool that allows to start standalone version of True Image 2013 at boot time when F11 is pressed. Acronis Startup Recovery Manager eliminates the need for rescue media.

Acronis Startup Recovery Manager is especially useful for mobile users. If a failure occurs, the user reboots the machine, hits F11 on prompt "Press F11 for Acronis Startup Recovery Manager..." and performs data recovery in the same way as with ordinary bootable media.

Limitations: cannot be organized on a dynamic disk; requires manual configuration of boot loaders, such as LILO and GRUB; requires re-activation of third-party loaders.

B

Backup

1. The same as Backup operation (p. 238).
2. A set of backup versions created and managed by using backup settings. A backup can contain multiple backup versions created using full (p. 239) and incremental (p. 240) backup methods. Backup versions belonging to the same backup are usually stored in the same location.

Backup operation

An operation that creates a copy of the data that exists on a machine's hard disk for the purpose of recovering or reverting the data to a specified date and time.

Backup settings

A set of rules configured by a user when creating a new backup. The rules control the backup process. Later you can edit the backup settings to change or optimize the backup process.

Backup version

The result of a single backup operation (p. 238). Physically, it is a file or a set of files that contains a copy of the backed up data as of a specific date and time. Backup version files created by True Image 2013 have a TIB extension. The TIB files resulting from consolidation (p. 239) of backup versions are also called backup versions.

Backup version chain

Sequence of minimum 2 backup versions (p. 238) that consist of the first full backup version and the subsequent one or more incremental or differential backup versions. Backup version chain continues till the next full backup version (if any).

Bootable media

A physical media (CD, DVD, USB flash drive or other media supported by a machine BIOS as a boot device) that contains standalone version of True Image 2013.

Bootable media is most often used to:

- recover an operating system that cannot start
- access and back up the data that has survived in a corrupted system
- deploy an operating system on bare metal
- create basic or dynamic volumes on bare metal
- back up sector-by-sector a disk that has an unsupported file system

C

Consolidation

Combining two or more subsequent backup versions (p. 238) belonging to the same backup (p. 238) into a single backup version.

The consolidation procedure allows you to delete the backup versions you no longer need from any backup chain while maintaining the consistency of chain's backups. A chain to be consolidated consists of a full backup and one or more incremental backups. Consolidation keeps whichever backups you choose and deletes any backups that are not selected. Note that consolidation may take a lot of time and system resources (including disk space).

Acronis Nonstop Backup uses a different consolidation mechanism. In such cases, the program consolidates the metadata information it uses for managing the backed up data. This is because the metadata information volume is much less than the backed up data volume. Accordingly, consolidation requires much less time and system resources.

D

Data synchronization

Data synchronization is a process of keeping data identical in two or more synchronized folders. These folders may be located on the same computer or on different computers connected via a local network or via the Internet. When you create, copy, modify or delete a file or a subfolder in your sync folder, the same action is automatically done in the other sync folders. And vice versa - when something changes in the other sync folders, the same change is done in your folder.

Differential backup

1. A backup method used for saving data changes that occurred since the last full backup version (p. 239) within a backup.
2. A backup process that creates a differential backup version (p. 239).

Differential backup version

A differential backup version stores changes to the data against the latest full backup version (p. 239). You need access to the corresponding full backup version to recover the data from a differential backup version.

Disk backup (Image)

A backup (p. 238) that contains a sector-based copy of a disk or a partition in packaged form. Normally, only sectors that contain data are copied. True Image 2013 provides an option to take a raw image, that is, copy all the disk sectors, which enables imaging of unsupported file systems.

F

Full backup

1. A backup method that is used to save all the data selected to back up.
2. A backup process that creates a full backup version (p. 239).

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Full backup version

A self-sufficient backup version (p. 238) containing all data chosen for backup. You do not need access to any other backup version to recover the data from a full backup version.

I

Image

The same as Disk backup (p. 239).

Incremental backup

1. A backup method used for saving data changes that occurred since the last backup version (p. 238) (of any type) within a backup.
2. A backup process that creates an incremental backup version (p. 240).

Incremental backup version

A backup version (p. 238) that stores changes to the data against the latest backup version. You need access to other backup versions from the same backup (p. 238) to restore data from an incremental backup version.

N

Nonstop backup

Nonstop backup actually is a disk/partition or file backup that is created using the Acronis Nonstop Backup feature. This is a set of one full backup version (p. 239) and a sequence of incremental backup versions (p. 240) that are created at short intervals. It gives almost continuous protection of data, that is, it allows recovery of previous data state at any recovery point you need.

Nonstop protection

Nonstop protection - the process that the Nonstop Backup feature performs when it is turned on.

O

Online backup

Online backup - a backup that is created using Acronis Online Backup. Online backups are stored in a special storage named Acronis Cloud, accessible over the Internet. The main advantage of an online backup is that all backups are stored on the remote location. It gives a guarantee that all backed up data will be safe independently of a user local storages. To begin to use Acronis Cloud a user should subscribe to the service.

R

Recovery

Recovery is a process of returning of a corrupted data to a previous normal state from a backup (p. 238).

S

Sync

1. The same as Data synchronization (p. 239).
2. Sync settings which were configured on the sync owner's computer. A created sync is managed using the corresponding sync box. Sync creation does not mean start of sync process. Other users may join a created sync.

V

Validation

An operation that checks whether you will be able to recover data from a particular backup version (p. 238).

When you select for validation…

- a full backup version (p. 239) - the program validates the full backup version only.
- a differential backup version (p. 239) - the program validates the initial full backup

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version and the selected differential backup version.

- an incremental backup version (p. 240) - the program validates the initial full backup version, the selected incremental backup version, and the whole chain (if any) of backup versions to the selected incremental backup version. If the chain contains one or more differential backup versions, the program validates (in addition to the initial full backup version and the selected incremental backup version) only the most recent differential backup version in the chain and all subsequent incremental backup versions (if any) between the differential backup version and the selected incremental backup version.

Version of synced file

A state of a file which is located in a sync folder after each modification of this file. File versions may be stored on Acronis Cloud.

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